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## The Hygiene of Sleep and the Treatment of Insomnia

THE ancients considered sleep the greatest gift of the gods. Men resemble animals in their preparation for sleep. Usually one lies first on the left side, then he turns to the right, then he gets drowsy. What does this signify? A sanguine hypostasis? No, for that would be coma, or a nightmare, as when one goes to bed after a full meal or when the portal vein cannot completely empty itself. Then one has dreams with all the horrors of reality, and in the morning he seems nailed to the bed. One is stifled, strangled. Whence comes this? Here is a true hypostasis—the venous blood backs into the sinuses of the spinal cord and over to the brain.

But when the evening has been spent agreeably and one goes to bed laughing, the dreams are the same—such as, the ancients said, passed by the gate of ivory. One feels something of lightness, ethereal-like, because the brain is not congested.

To secure this, one should enjoy a good hygienic regimen, not occupy himself with serious studies too late, give himself up to agreeable reading or conversation with

amusing people, avoid all irritating discussion, not eat too late nor drink too much. Too much beer is bad and causes acid dyspepsia.

But one cannot always force the brain to go to sleep. Thought, which is its function, as digestion is the stomach's, often continues active after the hour for repose has come, and if this active cerebral state is prolonged it becomes insomnia. At other times there are moral or physical maladies. What is to do then? Opium? Hufeland has well said that this was a double-edged tool. It relieves pain, but it does not induce sleep except it be heavy, because it congests. Morphine has the same inconveniences to a less degree; besides, it arrests digestion and next morning one has a heavy head, and tongue is coated, as if he had gone to excess the evening before. Codeine and narceine are less active, but for that very reason do not fill the need. Hyoscyamine causes vague dreams, but induces mydriasis. Besides, none of these induce vascular sedation, and that is necessary for sleep.

Ordinarily, through the fatigue of the day, the temperature of the body increases until

9 or 10 p. m. to about  $0.2^{\circ}\text{C}$ ., a sort of fever that subsides by midnight. This is why many persons are unable to sleep well until this hour. One should therefore prepare for it by absolute rest and by refreshing drinks. This is the basis of the use of tea in England and Holland, followed by a glass of claret as the night advances, for diluents alone would prevent slumber. It is necessary to avoid big suppers and late sleep, as this loses one the vivifying air of morning.

So far for hygiene; but often it does not suffice for very impressible individuals and for brain workers. Here we require the sedatives of the vascular system, aconitine and digitalin.

Burggraave was long tormented by insomnia, and could not endure morphine. He had recourse to aconitine and digitalin, which procured calm in the night. He spoke feelingly of his suffering from insomnia. "It seems as if all the thoughts overflow you at once and one finds himself in a whirlwind; he turns and returns, a sort of uproar recommences, humming in the ears, the pulsation of the arteries like blows of a battering ram. This shows that insomnia is due to exaggerated pulsations. A little time after taking the granules—three or four of each half an hour before going to bed—one feels calm returning, and the thermometer shows that this coincides with a fall in temperature of one-fourth degree Centigrade. The pulse falls to or below seventy. This is the most favorable moment for going to bed, when a peaceable slumber soon supervenes, provided the mind is not much preoccupied."

Cazenave asserted that sleep coincides with cerebral anemia and insomnia with cerebral congestion. But cerebral anemia prevents sleep in chloranemics. This, however, is due to the low tension of the cerebral vessels; for these persons are apt to be drowsy while sitting up, as the weak heart and relaxed arteries do not supply the brain with blood. On lying down the cerebral vessels are too weak to resist the influx of blood and cerebral anemia does not occur.

Jouffroy said dreams were due to the waking mind while the body slept. But absolute

repose does not occur with the brain and psychic impressions persist and reappear at the least disturbance like phosphenes to the eye. In sleep these are vague and difficult to recall on waking.

He attributes insomnia to two groups of causes: the direct, such as a too ardent imagination, passions, religious exaltation, overwork of the brain, cerebral maladies, especially if accompanied by fever; the indirect, or symptomatic, such as jaundice, dyspepsia, chlorosis, syphilis, suppression of habitual hemorrhages, traumatism, alcoholism. The latter may be soothed by aconitine and digitalin, especially if due to alcohol. The brain is to be calmed by the heart.

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"Growl, and the way looks dreary,  
Laugh and the path is bright,  
For a welcome smile  
Brings sunshine, while  
A frown shuts out the light.

"Sing, and the world's harmonious,  
Grumble, and things go wrong;  
And all the time  
You are out of rhyme  
With the busy busting throng."

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#### BACTERIAL IMMUNIZATION

One of the most promising fields for development in medical work is immunization against certain diseases, or rather their causes. But no one now agrees with Wright that "by means of the bacterial vaccines we have the power of raising the antibacterial power of the blood, with respect to any invading microbe, out of all comparison the most valuable asset in medicine;" though admitting that the principle is right, it is merely a question of means. If, for example, Mikulicz is right in his assertion that the hypodermic injection of nuclein before an abdominal operation increases the resisting power of the peritoneum against pyogenic bacteria twenty-fold, is the method not preferable to the introduction of an indefinite number of millions of dead bacteria?

A thoughtful article on the subject is that of Dr. B. A. Thomas, Assistant Instructor in Surgery in the University of Pennsylvania, in *The Journal of the American Medical*

*Association* for January 29, 1910. It is based upon an experimental study of 106 various affections, covering in all 50 distinct diseases, in which autogenous bacterins of one or more of the following were used: *Staphylococcus pyogenes albus*, *staphylococcus pyogenes aureus*, *bacillus coli communis*, *bacterium ferrugineum*, *bacillus fluorescens*, *diplococcus gonorrhoeæ*, *bacillus proteus vulgaris*, *bacterium punctatum*, *bacillus pyocyaneus*, *streptococcus pyogenes* and *bacillus tuberculosis*.

He deplores the fact that this form of therapy has been seized upon by men who have little knowledge of the principles on which it is based or of the proper indications for its use; by reason of which, or by an over-dependence on the opsonic index as a guide, by carelessness or inattention to certain clinical signs and symptoms, be they ever so slight and seemingly trivial in nature, or finally by an irrepressible enthusiasm to "push the treatment" as soon as improvement becomes manifest, the method has almost invariably led to disappointment, if not to utter failure and disaster. This is particularly true of tuberculous affections, in which a prolonged, tedious and cautious course of treatment of from six to twelve months' duration must be instituted.

The problem: "In what class of affections bacterin therapy shall or shall not be utilized?" is still beset with many difficulties, owing to the variability in the application of the treatment. Thomas says: "That inoculation by bacterin, in properly selected cases, plays an extremely important role in convalescence is indisputable; that failure to obtain expected results is due often to ignorance or misapplication of this particular kind of treatment in contraindicated cases, thereby unjustly placing active immunization in disrepute with many clinicians, is unquestionable."

To use the bacterins during the course of an acute infection seems to him unwarrantable. "For," he says, "the defenses of the organism have already been exhausted and broken down, which accounts for the occurrence of the bacteremia. How illogical, therefore, the introduction of an antigen, in

the hope of stimulating these body-cells to the production of antibodies, when their supply has already been consumed! We must not expect the impossible from bacterin therapy. Scientifically considered, from the standpoint of anaphylaxis, it is not improbable, in cases of bacteremia, that the inoculation of bacterin may not only do no good, but actually result harmfully. The organism is already in a state of hypersusceptibility induced by an overwhelming autogenous antigen, when, if the theory of Vaughan be correct, albumin in the body is broken up into the toxic and nontoxic groups. At the time of the heterogenous injection of dead bacteria the body attacks the albumin so vigorously and releases so much of the toxic group that it is overcome by the poisonous radical. On the other hand, late in the course of the disease, if the patient survives, it must be recalled that the inoculation of dead bacteria may act beneficially."

In Thomas' experience abscesses afford a fruitful field for bacterin therapy, excepting those in which the *bacillus pyocyaneus* occurs, in which cases not the slightest benefit has been noted, the explanation perhaps being that it is an acute infection engrafted upon a previous suppuration due to *staphylococci*. The most brilliant results have been obtained in multiple subcutaneous or superficial abscesses. Four inoculations cured a case of acne vulgaris of fifteen years' duration.

In the treatment of sinuses good effects were produced, though not so striking as in abscesses, chiefly because mostly carious bone or other foreign bodies lie at the bottom of the sinuses and keep up the suppurative process, which can be overcome perhaps, in the case of bone, by irrigation with one-half of one-percent solution of sodium citrate in five-percent salt solution as suggested by Wright. In fistula of the rectum results have been negative.

He regards cure of empyema as questionable by this line of treatment even with free drainage, only slight improvement having been secured thus far.

Theoretically the use of the bacterin of *streptococcus pyogenes* ought to be promptly

curative in erysipelas. Practically the results have been rather disappointing.

In the management of postoperative wound infections he declares that although the results have been satisfactory so far as cessation of suppuration and wound repair are concerned, it is impossible to place the credit entirely to the inoculation of dead bacteria. Cases treated with stock bacterins have responded equally with those in which the autogenous preparation was used.

As to the infections with the gonococcus, osteoperiostitis due to chronic gonorrheal infection has yielded beautifully, gonorrheal prostatitis has promptly subsided and chronic urethritis quickly disappeared; but cellulitis was not benefited, while vulvovaginitis has responded better than to any other plan of treatment.

The mixed infection of late tuberculosis likewise has shown marked improvement under this form of therapy.

From his rather variegated experience the author draws these conclusions:

1. The diseases contraindicated for bacterin therapy are the diffuse infections characterized by septicemia, pyemia and grave sapremia.

2. Those in which therapy by this agent is beneficial or curative are the superficial acute, subacute and chronic processes, especially the last two.

3. The acute cases, in which brilliant results can be uniformly expected, are those of acne vulgaris, furunculosis, carbuncles and subcutaneous abscesses.

4. Subacute and chronic gonorrheal and tuberculous affections are amenable to bacterial immunization, and because of the frequent impossibility and impracticability of employing an autogenous bacterin the reliable stock preparations should be used.

5. Certain acute gonorrheal infections can be benefited.

6. It is questionable whether tuberculin therapy should ever be employed in very acute tuberculosis. Opinion is divided as to whether or not acute miliary tuberculosis and death supervened as a result of tuberculin therapy in one of our cases, No. 81 of the series.

7. The mixed infections in chronic tuberculous disease afford an important prospective field for alternating bacterial inoculations and tuberculin therapy.

8. Autogenous bacterins are always to be preferred over the stock preparations, and success or failure frequently depends on this fact.

9. Although the duration of the period of greatest potency of bacterins is undetermined, the best results have been obtained when the pus has been recultured and a fresh bacterin prepared every two to four weeks.

10. It is believed that the best effects, therapeutically, particularly in chronic cases, occur when the quantity of bacterin is slowly and cautiously increased during successive inoculations, thereby, as has been thoroughly demonstrated in tuberculin therapy, avoiding hypersusceptibility, or anaphylaxis.

11. Therapy both by bacterins and tuberculins can be satisfactorily executed by keen observance of the clinical symptomatology. Reliance on the opsonic index as a guide is not only unnecessary, but often conducive to erroneous conclusions, owing to its variability.

12. Bacterin therapy, by virtue of its potency to do more harm than good, when unskillfully managed, will or should probably not become a universal therapeutic measure in the hands of the general practitioner unfamiliar with bacteriology or with work in the laboratory. Ignorance and wantonness are incompatible with ambition and energy, and an otherwise meritorious therapeutic agent thus abused will ultimately fall into disrepute.

13. The employment of bacterins made from bacillus pyocyaneus has been useless.

14. Bacterins and tuberculins are not "cure-alls," but when intelligently used serve as invaluable aids to nature in fortifying the bodily defenses, thereby accelerating convalescence, diminishing complications and promoting cure.

#### VERATRINE IN PRACTICE

Gerhardt declared that the doctor who dared administer veratrine ought to remain



by his patient's bedside, to be ready to extend aid when needed. Burggraave details a case of traumatic pleuropneumonia in which he gave a milligram of veratrine every half hour until nine doses had been taken. He asks, where is the danger of which the German speaks? At first he, Burggraave, had felt the same way, and scarcely dared venture on 3 or 4 milligrams of veratrine. Now he gave up to 20 milligrams gradually. No doubt there is danger in doses of 2 1-2 centigrams as mentioned by Liebermeister.

In the case quoted by Burggraave, a man had pleuropneumonia following the fracture of a rib; he was in a stupor, respiration and circulation barely perceptible. He was given phosphoric acid and strychnine, with a little hot wine, and the thorax was immobilized. In two hours the pulse and heat had returned, when venesection was performed, the remedies being continued. Next day the pneumonia had declared itself and veratrine was given, a milligram every half hour for nine doses, when diarrhea began and the fever fell. By the next day the lungs were completely clear.

Barrere details the case of a boy aged fourteen, with pleuropneumonia, pulse 125, respiration 28, temperature 102.2°F. Under aconitine and veratrine, a granule of each every hour during the night, the fever fell to 100.4°F., the pulse to 100. The treatment was continued for three days, the mother remarking, "I can make the pulse and temperature descend or allow them to rise at will."

Birabent cured a similar case in eight days, with aconitine, veratrine and quinine hydroferrocyanide.

Bourdon's case was of the ataxo-dynamic form. Without strychnine pushed to full effect death was certain. He adds: "I have more than once seen the powerlessness of alcohol in these grave cases."

Costa records a case of double pleuropneumonia treated with aconitine, veratrine and strychnine, a granule of each every hour, with laxative salines. As the fever fell this treatment was changed to strychnine sulphate and quinine arsenate. The case was dismissed, cured, in six days.

Ternisien reports three cases. One was aborted in one day by veratrine and strychnine. The second was that of a man who had had repeated similar attacks. He was given veratrine and cicutine. Diphtheria appeared and he was put upon calcium sulphide, strychnine arsenate and phosphoric acid. The cure was rapid and sure. In the third case leeches were employed; then veratrine, flying blisters for the pleurisy, phosphoric acid, and a little codeine for the cough. The case ran two weeks—an unusual time with this method in force.

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We become largely what we think we want to be. High thinking leads to high aiming. If we think great things long enough and hard enough, some day we are likely to do them.—W. H. Cottingham.

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#### CRATAEGUS OXYACANTHA

Dr. Thomas F. Reilly, in *The Journal of the American Medical Association*, cites two cases in which crataegus appeared to be of value. A woman, aged 33, had had, for four years, pain and distress about the heart, paroxysmal, at times with syncope, dread of death sometimes continuing for weeks. Pulse 90, slight lateral enlargement of the heart, no gastrointestinal disorder. All cardiac tonics and stimulants seemed to aggravate the disorder. Bromides quieted the nervous system and the apprehension but did not affect the heart symptoms. Crataegus in 20-minim doses gave the first complete relief in four years. Subsequent attacks had been averted by prompt resort to this remedy.

A woman, aged 28, had been having attacks of precordial pain for a year; no gastric manifestations, pain of a squeezing character, continuous, made worse by excitement; there was a moderate blood pressure, mitral systolic murmur at apex. Some benefit followed upon the administration of digitalis, but the pain continued. Crataegus, 20 minims every four hours for two weeks, caused the pain to disappear and after three months it had not returned.

No diuresis or rise in blood pressure followed its use. Dr. Reilly thinks crataegus

a perfectly safe agent with no poisonous effects. He suggests its use in aortic disease, arrhythmia, fatty degenerations, in cases with high arterial pressure and where digitalis is not well borne. It is better given during or after meals, in doses of 10 to 20 or 30 minims of the fluid extract.

### "SURGICAL JUNK"

That veteran operator, Joe Price of Philadelphia, contributes to *The Southern Medical Journal* a most suggestive paper on "Surgical Junk." Here are a few specimens:

"A distinguished specialist in gall-bladder diseases lost four patients in a series of five. I reopened the abdomen twice in the fifth patient. I thought I could relieve him by freeing adhesions in the first attempt; in the second I removed his diseased gall-bladder and placed his viscera in normal relations."

"I received a letter from a young surgeon, asking me to take a patient or to tell him how to deal with it. She had had two or three gall-bladder operations followed by fistulae and is now septic and asks for relief. I wrote him, 'I don't want her; hands off.'"

This is refreshing. Such cases are not often dilated upon by the surgeon. The idea sedulously held up for our admiration is that when in the case of a patient "all other treatment has failed," the surgeon steps in, and presto! the miracle is wrought.

Only ideas and ideals survive. Things of stone and metal and wood are tid-bits in the teeth of time.

—Herbert Kaufman.

### THE DOCTOR AND PATENT MEDICINES

In the whirlwind campaigns of publicity of all manner of fads, foods and physis the doctor is treated as a mere lay figure or puppet and is employed as best suits the purposes of the advertising writer. In one place we find him buffeted about, stigmatized as a faker, an imposter and a butcher of men; in another he is placed upon a little stage throne and somebody's remedy is made to shine in his reflected glory.

Some of the food-faddists delight in depicting avaricious doctors operating to re-

lieve conditions which would yield promptly to the use of "Soandso's Breakfast Food;" cultists picture him as magnifying diseases which are merely figments of distorted imagination or which do not exist at all.

But down at the bottom of most patent-medicine advertising we find that the game is given its stability by being made to rest upon the confidence of the people in the family physician. There is "Dr. Whatyoucallem's Favorite Prescription", and Dr. Whatyoucallem, who perhaps never existed outside the fancy of the advertising man, is shown as a benignant and bewhiskered physician of the old school resting his soft, cool hand upon the fevered brow of suffering humanity. Unconsciously, perhaps, the "Favorite Prescription" is accepted as worthy of confidence on account of the alleged association with the good old family doctor.

Popular education, for which the medical profession is responsible, has advanced the people beyond their former conception of the secrets and mysteries in medicine. The layman has awakened to the fact that medical practice is the application of the rules of cause and effect and that medical knowledge is not the private possession of any individual however learned he may be. Hence the charm of "Dinwiddie's Medical Discovery" has waned and "McAdoo's Mysterious Medicine for Many Maladies of Man" makes few converts.

The modern, up-and-doing advertising man has seen that he cannot successfully fight the doctor in his patent-medicine publicity and so, with his characteristic aptitude, he has utilized the man of medicine to his own ends.

"Eminent doctors prescribe Sloan's Silicia Salve" says the modern street-car advertisement. Of course eminent doctors do no such thing; but who will stop to inquire about it?

"Distinguished physicians agree on this prescription" is the heading of a newspaper article in which is given a formula of whisky, sarsaparilla and "fakerina" as a cure for whatever ails you.

Thus the patent-medicine man takes credit through "eminent and distinguished physicians" of fiction.

But one literary gem in patent-medicine advertising goes even further. It actually protects and upholds the good, kind doctor against the assaults of his enemies. "Are all doctors quacks?" the advertisement demands indignantly. "We all know there are ignorant quacks; does that prevent anyone calling in his good old family physician in case of need and trusting him?" The printer's ink actually runs in the heat of the advertising man's anger. The idea of losing confidence in the good, kind physician just because there are some quacks on earth! And then the argument—the *q. e. d.* of the problem. As some doctors are quacks, so are some medicines "fakes." As some doctors are good, honest, kind and trustworthy, so is "Gidia Linkham's Veritable Compound" good, honest and trustworthy.

And the unsuspecting public, which has been accustomed to the blatant claims of patent medicines and the condemnation of doctors, cries in its admiration: "Here is a remedy on the square, for it places the honest family doctor on the same exalted plane as good old Gidia Linkham."

Physicians seem unwilling to comprehend that active medicaments exert a purely physiologic, catalytic action.—Burggraave.

#### AS TO UNPROFITABLE FRETTING

How regrettable it is that those who affect to be so fond of making themselves and, what is far worse, others around them intensely miserable will not realize that nothing on earth is gained by fretting. Hard work viewed in the distance seems too much for one person to perform, but when it is brought close much of the difficulty disappears. When one's mind is fully made up that a certain work shall be done one begins to devise a way, and soon the obstacles are removed and the thing itself becomes an easy task. As the work progresses it actually becomes interesting, and when at last it is finished it gives more real satisfaction than

would much other employment less difficult and of minor importance.

Hard work must not be confounded with overwork. This is never commendable, for no one has a right so to exhaust his physical powers as to unfit him for mental recreation. The man or woman who drudges from morning till night and lies down, like the weary beast of burden, to sleep till morning calls to labor again must have a mind as empty as a soap-bubble and cannot enjoy the benefit of his labor.

Hard work must not be continued to exhaustion; the harder the labor the less of it should be taken for a day's work. We can put in two, three hours and not suffer, but with double the time of exertion we have trespassed on the laws of health. Better occupy half the day in lighter employment. Take a good night's rest, and begin again the next morning with new interest. A tired person is very often a disagreeable person, and is never pleasant company.

#### HOW NOT TO TREAT ABORTION

An esteemed subscriber in far-away New Zealand recently sent us a contribution, culled from his case-book, describing a case of what he calls miscarriage, in a woman 29 years old. We should like to have reproduced the report in full, were it not for its length; but we must content ourselves with giving an abstract, briefly detailing the treatment given.

The doctor was consulted one Sunday evening by the husband of the patient, who, he said, had, the day before, lost much blood and had passed "a piece of flesh as large as his fist." No doubt, the doctor was tired after his day's work and did not relish the prospect of a two and one-half miles' tramp "across paddocks," so he prescribed ergot and hamamelis and prescribed hot drinks. The next day, on a visit, *nux vomica* and *macrotys* were added to the mixture and minute directions given for diet.

One day later, the discharge being profuse, an examination was at last made. The doctor "found the uterus relaxed, the

os (I) greatly swollen and very sensitive." He therefore pushed the ergot and ordered cold drinks. He also left "some absorbent cotton-wool, in case profuse flooding should return and ordered to send" for him at once.

He was called a few hours later, because the patient was flooding very badly. We quote: "When I arrived, I found her in a very exhausted condition and complaining of a severe pain in the hypogastric region. On palpation I found a hard body and came to the conclusion that the embryo had detached itself." Where was the hard body? Why should it suggest that the *embryo had detached itself*? Where had it been attached? Again ergot and hamamelis were pushed, and the doctor staid the night, but does not seem to have done anything.

In the morning (fourth day!) it occurred to him that the patient was constipated, since she had passed nothing for four days (Ye gods!). So he administered an "enemata" (Why not enema, since there was only one?) of two drams of glycerin. "On straining at stool she passed very hard feces, clots, and an embryo about three inches long."

Of course the flow continued, so the trusty ergot was resumed, this time with cactus. For the next week pain, flooding, and other symptoms appeared, disappeared and reappeared in a sort of hide-and-seek play, and were promptly dosed with a variety of specific tinctures, until finally nature asserted herself and the patient recovered *in spite* of the treatment given.

Now here is a physician, with a good medical education and in good standing, or else he could not practise in New Zealand where we understand the laws regulating the practice of medicine to be strict. He dashes off, in the form of a letter, a report for publication. The only point of possible interest in the whole report is that apparently "the placenta came away five days before the embryo—a rather unique proceeding," if we admit that the piece of flesh as large as a man's fist which had passed the first day actually was the placenta—a thing which we question, since the embryo was only three inches long.

Why, then, mention the report at all? It occurred to us that it might afford an opportunity of showing by a concrete example how *not* to treat abortion. (It was not miscarriage, as the title of the report has it, but abortion.)

Abortion is not a disease that can be treated and controlled with medicines and with dietary regulations, however well considered they may be. The "Digest of Positive Therapeutics," page 41, gives the hint to tampon the uterus and vagina in rebellious cases, that is, in cases where abortion can no longer be prevented. Every textbook on Obstetrics says that in cases where abortion is inevitable, the uterus must be emptied as promptly as possible, using all aseptic precautions. The vaginal tampon properly applied will not only control the hemorrhage, but will also stimulate uterine contractions and encourage the separation of the ovum from the uterine wall. The application of the tampon must be preceded by a thorough emptying of both bladder and rectum.

With this treatment, medicines which act directly on the uterus are hardly indicated, except perhaps such as will relax the organ. But it is hopelessly bad practice to lock up and double-bar the uterus, and render its efforts unavailing with ergot, while anything is left inside it. Unless the vagina is packed, it is decidedly risky to leave the patient even for a few hours, because uncontrollable hemorrhage might occur. You will have to remain with her, ready to go to work, and with your hands, not with medicines, which in this case and for the end desired are silly. After the uterus is thoroughly emptied, you won't need ergot any more, unless the organ is badly weakened by abuse; and in that case a few guarded doses are all that is required. If flowing continues, you may be sure that the uterus is not empty. and it is up to you to get it clean.

Don't wait four days before emptying the bowels. Get after them the first thing after having attended to the symptomatic flooding, while you wait for things to happen. And don't, don't play with a dinky little two drams of glycerin per rectum. You might

as well go shooting moose with bird-shot. Give a good big enema of warm water and soapsuds, enough to wash out and flush the rectum, or perhaps two enemas or more, if the descending colon continues to shoot scybalæ into the rectum.

The case, as reported, required a good two weeks' time before convalescence was established. It might easily have been terminated favorably within twenty-four hours, with proper management.

You say: "Everybody knows how to manage an abortion, and you might have saved our breath."

True enough. But not everybody does manage an abortion properly, or in any way sensibly, and the poor women have to suffer for our carelessness. If you want to be a doctor, be a good one, do things right, and do them when they should be done, at once; and keep at them until they are done. If you do not want to do that, better take in your shingle and turn politician; then you may perhaps secure a nice easy job, where you can talk and don't have to hustle.

Another thing. We are glad indeed to have reports from the field. We want them: most of them give something worth having and worth knowing. But if you do write, please have a little consideration for the editor. Write your stuff *after* having thought it over, not before. Arrange it in an orderly manner; write on one page only; write legibly if you do not have a typewriter. The readers of *CLINICAL MEDICINE* know a good thing when they see it and appreciate it the more when it is aptly said. While we are glad to "fix things up" for busy friends, they shouldn't expect *too* much from us.

Every man should keep a fair-sized cemetery in which to bury the faults of his friends.—H. W. Beecher.

#### THE AMERICAN SURGEON

The American Surgeon has been in the limelight so long, and has been in the habit of looking upon himself as most emphatically and exclusively "IT" for so many years, that it is quite refreshing to the rest of us to hear our recent visitor, Jonnesco, give

utterance to the impression formed by him during his visit. He says the American Surgeon is rather to be pitied than blamed!

Good! Come again, Jonnesco; we shall be glad to see you.

#### THEOLOGIC MEDICINE

When, not long ago, a medical college came under the supervision of a certain sectarian university the faculty was left free as to its teachings, with three exceptions, to wit, they were required not to teach atheism, nor craniotomy, nor evolution.

With the first and second requirement we are heartily in accord. The atheist may be such from a conscientious belief, but he has no business to lug his personal belief in religious matters into his teaching of medicine, where it is out of place. If he goes out of his way to inculcate a religious faith that will be a serious obstacle to the success and usefulness of the student when a practising physician, he shows no more sense than if he were to urge his students to wear a red shawl when crossing a field the abode of a vicious bull. Such a man should have no place on a medical faculty.

As to craniotomy, we here face a moral question that the physician as such must decide—as a matter of fact, have we the right to take a life to save one, since there are other means of saving the mother? Frankly, we stand with the Church in this matter and find no fault with the restriction.

We now come to the most important question, that of evolution. Here we see a group of theologians who are not men of science assuming to restrain a group of scientists from teaching what modern science has universally accepted as a fundamental truth. This is based on the supposed necessity of having all departments of human belief and investigation regulated by the Church and harmonized with her ancient creed. This has ever been the means of separating church and science since the day when men were told that it was immoral to say that the world was round, because the Bible spoke of the "corners of the



earth;" hence it was square, and the firmament was glued over it like a watch-glass—and a curious book was written discussing the nature of the glue employed.

Moderns reverence the Bible and the church as teaching a system of morals that has endured for ages, and will endure, because it is true; but few men of scientific attainments anticipate that the development of knowledge will in no way modify the standards of sciences fixed by the priests and prophets of ancient Judea. These men stated the truth as they knew it, and suffered martyrdom rather than depart therefrom; but how could they know all—we do not know everything yet. It seems unjust to require such prevision from them, and the assumption of such miraculous knowledge would reduce Christendom to the intellectual deadness of China since the days of Confucius.

By foregoing the teaching of evolution the faculty of this college submit themselves to the dictation of men who are not capable of deciding such matters, and are constrained to array themselves against the science of the age. They can not give the true explanation of many phenomena, and to the inquiring student they must present the blank wall of the forbidden. Not only do they thus limit his acquisition of necessary knowledge but they powerfully discourage his aspirations for more light, and turn him into a mere learner by rote of the teachings handed down by a superior authority.

Such a student may become a fairly safe practitioner, but he will be debarred from that freedom of investigation that has produced all the advances of science in its entire range. He can not recognize in the pineal gland the relics of the cerebral eye, in the external ear a gill-arch, in the appendix the remains of a formerly important digestive apparatus. His arch lacks the keystone and is a mere pile of material, it is not a real structure. He is without that definite plan that enables one to comprehend and explain the functions of any part by its interrelations with the body as a whole; the human body by its relations with animate

nature; this by its relations with that of past eons.

We can not congratulate the members of this faculty who retained their chairs in the medical institution under these painful limitations.

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Just when the pearl was waiting one more plunge,  
How many a struggler has thrown up the sponge;  
And O how true, when shades of doubt dismay,  
'Tis often darkest just before the break of day.  
A little more persistence, courage, vim,  
Success will dawn o'er fortune's cloudy rim.

Then take this honey for the bitterest cup,  
There is *no* failure save in giving up;  
No real fall as long as one still tries,  
For seeming set-backs make the strong man wise.  
There's no defeat, in truth, save from within,  
Unless you're beaten there, you're bound to win.

—Anon.

#### THE "NO-DRUG" ADVICE OF WOODS HUTCHINSON

A few evenings ago the Physician's Club of Chicago held a joint meeting with the Press Club of this city, and after an excellent dinner discussed the relations of Medicine to the Press. Both physicians and lay writers were represented on the program, and many excellent things were said and a large amount of valuable advice given. Dr. Woods Hutchinson of New York, the brilliant magazine-writer of popular medical articles, made what was perhaps the most significant speech of the evening.

Dr. Hutchinson came out with the unqualified statement that drugs are absolutely useless; that to take medicines into the stomach with the expectation that these things would modify the course of disease was an anachronism; and it was hinted that physicians of the better class no longer believe in internal medication. The physician of the future would do what the better physicians of the present are trying to do: show men and women how to live; protect them from infection; teach them the value of cleanliness, of fresh air, of exercise, of proper food; and if they became sick, instruct them as to how best to conform their lives to their ailments—relieving their pains, presumably with the hot-water-bottle and unloading their bowels with "corrugated

oats"—supposing (we presume) the trouble something unreachable by the surgeon's knife.

Very beautiful! Dr. Hutchinson's specialty is magazine medicine; in that branch of our art he stands at the head of the "faculty." We would not for the world cross pens with him, since the keenness of his wit more than atones for any feebleness of argument. But we suspect that the Doctor's experience in the actual administration of medicines to the sick is somewhat limited.

Let us assume that he is right. Certain it is that the therapy of the past has deserved much of the evil said of it. The human stomach has been made the sewer for the most disgusting potions, and things have been given to relieve diseases, which, in too many instances, served to aggravate rather than to ameliorate them. The cramps of colocynth are no more easy to bear than those produced by green apples. The digestion is upset by remedies repugnant to the taste, without having any compensating certainty of action. These remedies have been given without a clear understanding of their nature, and the segregate clinical experience of the "master" has become the therapeutic gospel of the student, to be repeated from generation to generation of textbook, until it has become authoritative and sacred. (Witness the alleged dangerousness (?) of green apomorphine!) The drugs themselves are notoriously untrustworthy: often made of impure, fraudulent or sophisticated raw materials; containing uncertain quantities of active principles in varying proportion—sometimes dangerously toxic, at other times criminally inert.

Is it any wonder that our ancient therapeutics has fallen into disrepute and that even medical men have lost faith in it?

But is the evil said of the therapy of the past to be indefinitely extended to the therapeutics of the present and future? Hutchinson was undoubtedly discussing drugs as he knew them—as they were twenty-five years ago when he left college. Has there been no change since then? Has the future no promise? We know there has been—that there is! The effects of the old-style reme-

dies are not comparable with those of the active principles, given in concentrated and palatable form, free from odor, almost if not entirely free from taste, always identical in strength and uniform in action. With remedies of this kind the physician who understands the condition with which he has to deal and the physiological action of the remedies which he administers, will have no cause to rail upon modern therapeutics. Nor will his patients join the swelling army of those going over to Christian science, new thought, Emmanuelism, Doweism and the like.

The physician who uses the active principles, giving them according to the dosimetric plan, in small repeated doses to effect, will incite no drug-disease, and will certainly cure in many instances where other men have failed.

Have you, dear reader, found any therapeutic nihilists among those who use the active principles? Can you find a man among them who can not tell at least one story of a life saved by the use of medicines? You know, and we know, that remedies of this kind, properly given, are every day saving thousands from physical shipwreck.

We have one criticism of Dr. Hutchinson's address, and it is this: He left the impression with an influential group of newspaper writers, to be by them disseminated all over the world, that "there is nothing in medicine," and that the physicians who use drugs are either ignoramuses or wilfully deceiving their patients. It is such addresses as these, coming from prominent men in our own midst, which crowd the waiting-rooms of quacks and fill the gilded temples of the healing sects; it is talk of this kind which discredits the doctor and makes him poor. Speeches of this kind do not accurately portray the sentiment of the profession, nor its beliefs in the efficiency of medicine which are based not upon a blind faith but upon *works*.

When men are sick they want help—not good advice. If the doctor has only the latter to offer, or if the impression becomes current that he is only a pretender, a half-hearted "scientist" who is principally in-

terested in the man's disease, only secondarily in the man himself, can you blame that suffering piece of poor humanity for going to someone who bids him hope?

A skilled diagnostician treating chronic diseases has a gold mine.—Austin, "Medical Era."

### FECAL TETANUS AND ITS DANGERS

The well-known New Orleans surgeon, Matas, has just published (*Monthly Cyclo-pedia*) a warning against the peril of tetanus from contamination with the feces of the patient.

Next to the feet and hands the regions most frequently affected with tetanic contamination are those subject to direct contact with fecal discharges. In the two cases occurring in his practice he found that the patient had eaten copiously of uncooked vegetables within twenty-four and thirty-six hours before the operation. These had been among those most frequently found by the laboratory to be contaminated with tetanus germs; namely, celery, lettuce, chicory, watercress, cabbage, radishes, turnips, carrots, tomatoes, strawberries, blackberries, and other vegetables, berries and fruits that are grown in the soil or brought in contact with it and largely consumed raw in an unavoidably contaminated state.

The tetanus bacillus and its spores are known to survive their passage through the digestive canal, especially of the herbivorous animals, whose dung is a perpetual culture-ground for them as they are constantly swallowed with grass and fodder. The bacilli are ejected alive and probably with their virulence increased by residence in the favorable conditions afforded by the lower bowel (Sormani). The survival of virulent tetanus bacilli, the resistance of their spores to the digestive juices, the production of tetanus when these feces are brought in contact with wounds of other animals, have been fully proven by Sormani, Hoffmann, Veillon, Sanchez, Toledo, and others.

Five percent of healthy men harbor tetanus bacilli or their spores in their bowels, and the percentage rises to twenty in the case of

men employed about animals (Pizzini). The normal defenses of the body suffice in the majority of instances to protect it against the disease, even if living tetanus bacilli are freely ingested with the food. Occasionally this protection fails; and operations about the exposed regions are then liable to be followed by infection. This may be averted by a little care.

The antitetanic precautions suggested by Matas are, purgation three days before operation, the suppression of all raw food, especially green vegetables, berries and other fruit, for the same period, and when these precautions are impossible the injection of 10 Cc. of tetanus antitoxin subcutaneously at the time of operation.

We have here another and notable illustration of the manner in which professional opinion is veering around to the position we have occupied for so many years. The perils arising from the fecal contents of the alimentary canal, and the wisdom of preventing them by a routine treatment, are becoming daily more generally recognized.

"Clean out, clean up, and keep clean."

### PHYSICIANS ARE NOT GODS

If ignorance and puerile judgment could be supplanted in the popular mind by a reasonable degree of rationality, physicians would suffer less uncharitable criticism and unjust condemnation. A man, an ordinary human being, if he has taken a course of medical training, seems in the ordinary lay mind thereby to have acquired some omnipotent attributes, or if he has not done so he ought to, and should then be able to perform miracles. And many times, be it said to his credit, he does accomplish results in the treatment and cure of human ailments which are truly remarkable. But these happy results are attained only by helpful cooperation of the patient and the more gracious beneficence of nature.

One of the most difficult obstacles with which the practitioner has to contend is the lack of cooperation on the part of the patient and inattention to the advice of medical wisdom. This advice, by the way, must be

given upon the instant, otherwise the doctor is set down as incompetent, unlearned, and hence incapable of offering advice or suggesting treatment.

Upon what other profession are the requirements so exacting. Suppose a lawyer is asked a question, does it occasion surprise or presuppose unfamiliarity with law if he fails to answer immediately? By no means. The client is told to wait a few days until the legal light shall have had time to read up on the point, and he goes away satisfied and patiently awaits the cramming-up process undertaken by the lawyer. The architect requires and is granted weeks to study and offer estimates. The theologian takes days and weeks to prepare for the exposition of a single subject. The mathematician and linguist also may temporize to the extent required in the preparation of their daily tasks; but for the physician to demand a little time to give especial study to some obscure case argues him of mediocre rank or absolute inferiority.

What, then, is left to him but the employment of subterfuge in order to gain the necessary time to give especial thought and study to the abstruse point in question?

Then, after the advice is given, in many cases there is no certainty that it will be followed. The patient says: "But, Doctor, that takes too much time," or "It is too troublesome," or, "I cannot afford to rest or stop work." Well, then, what is to be done? The ailment may require absolute rest, and without cessation of work the difficulty cannot possibly be overcome.

Scientific treatment will help, but cure, never, under existing circumstances. The disease drags along. The doctor is constantly harassed and discouraged by the ever-recurring complaint, "I am no better," until another physician is sought and the first one advertised more or less broadly as "unable to cure me, and my money was thrown away." The same experience, possibly modified, is again gone through with until necessity compels a cessation from work or the patient drifts into the consumption of patent medicines, and the ultimate benefits from the treatment of the

physician is ascribed to the patent medicine, whereupon these nostrums acquire another convert and the scientific physician another enemy or skeptic.

We ask in vain for a remedy for these conditions. Never till a broader general knowledge obtains among the laity can we hope for a more charitable and rational consideration at their hands.

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Whatever you do, put into it the whole force of your mind, and as you would avoid the waste of time, avoid the wandering of your thoughts, the scattering of your efforts—concentrate, concentrate in all things.

—W. H. Cuttingham.

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#### A COMPARISON OF THE DRUG WITH ITS ALKALOIDS

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In a paper published in *Folia Therapeutica* (October, 1909), Sir Samuel Wilks compares the results obtained from the administration of crude drugs with that from alkaloids, arriving at conclusions decidedly to the disadvantage of the latter. The instances brought forward by the author, in support of his position, are very well as far as they go, but they do not go far enough. If, for instance, he "constantly found cases of illness other than those of ague, where the infusion or decoction of cinchona bark was a far-better medicine than quinine," we can only point to the fact that Cushny (quoted in "Alkaloidal Therapeutics," second edition, p. 336) enumerates as constituents of the cinchonas 21 alkaloids, 6 acids, and 3 neutral bitter substances, and that in those cases of illness other than ague quinine was not indicated at all, while some other of the constituent alkaloids were.

The same holds true to a far greater degree for opium, some of the constituent alkaloids of which have an action antagonistic to that of morphine. It is also true for digitalis, belladonna, and for all the crude drugs which the author mentions, as well as for those which he omits.

It has probably happened to all physicians who use the alkaloids in their practice that occasionally these fail and that an infusion or decoction of the drug or fresh leaves of the related plant gives better results. The

present writer recalls a striking case in point, somewhat similar to one cited by Sir Wilks.

This case concerned a man of alcoholic habits who, after a severe injury, developed a high degree of cardiac weakness with general anasarca, etc. Digitalin did not touch the case, while under infusion of digitalis, advised by a consultant, all symptoms promptly cleared up. Had the writer at the time been able to read up on the proper alkaloids to use, the infusion would have been needless and the disease in all probability would have run a far shorter and more benign course.

We mention this instance from our own experience to show that alkaloidal medication is by no means easier than the old galenic dispensing or prescribing. It is not. It requires careful study and painstaking consideration of all indications. But the results justify the extra brain work in being far more prompt and certain, and the principle of small doses repeated to effect assures a sufficient dose while preventing an overdose.

#### HOW THE OPSONIC INDEX IS OBTAINED

So many inquiries concerning the method of obtaining the opsonic index have been made that the following brief explanation may be of interest to many readers of CLINICAL MEDICINE.

"Opsonins", it may first be explained are hypothetical substances in the blood-plasma which prepare the microorganisms for disposal by the leukocytes. Second, leukocytes performing the function of ingesting bacteria or other foreign substances are called phagocytes; that is, the leukocytes are performing phagocytic action. Third, the normal amount of opsonins possessed by an individual is determined by counting the number of bacteria which are ingested by a certain number of leukocytes in the blood-serum; this being called the phagocyte-count. Fourth, the normal phagocyte-count for most of the pathogenic microorganisms now being a matter of record, all that is necessary is to determine the phagocytic

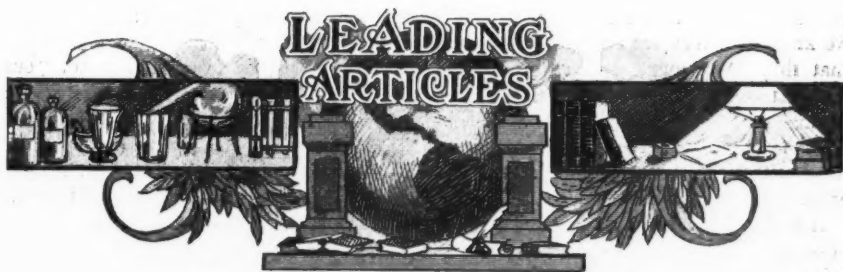
action of the sick person's blood for any particular bacterium and compare it with the normal standard; this being easily done by any one familiar with hematology and bacteriology. Fifth, the phagocyte-count of the patient having been determined, the "opsonic index" is obtained by dividing it by the normal phagocyte-count for that particular bacillus or coccus.

Thus, if examination shows that in the serum of the patient 240 bacilli of tuberculosis are ingested by 40 leukocytes in a fifteen-minute period, the phagocyte-count of that individual would be 240 divided by 40—that is, 6. Now, in normal blood-serum only 160 of these bacilli are ingested—that is, the normal phagocyte-count for the bacteria of tuberculosis is 4. So the "opsonic index" of the patient is found by dividing his phagocyte-count (6) by the normal phagocyte-count for tubercle-bacilli (4); giving 1.5.

The precise value of the opsonic index has not yet been determined; but since pathologists now believe that greatest progress is to be made in a careful study of changes in the blood and in the therapeutics dependent thereon it is quite likely that our knowledge of opsonins may prove of great value, at least in leading to more definite things based upon known facts instead of theories.

Heretofore study of hematology has been chiefly confined to the various types of leukocytes; but recent investigations by Ward and others show that the changes in the erythrocytes may be of even more importance than those of the leukocytes. Certain it is that we are upon the threshold of great discoveries in the pathology of the blood and the relation thereof to many diseases now quite obscure in nature and of purely empiric treatment. That the field of definite, scientific therapy is soon to be greatly enlarged by certain methods designed to change the condition of the blood can not be doubted by anyone who has kept in touch with recent progress in the study of the blood. What the relation of the opsonic index to this department of therapeutics will be cannot, for the present, be predicted definitely.





## Commercialism in Medicine

*Being Somewhat of a Socialistic Preachment. Intended  
for Doctors and Other People*

**By GEORGE F. BUTLER, A. M., M. D., Chicago, Illinois**

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**T**HE world has never seen such an advance along commercial lines as it sees today. Not only is there marvelous progress in business but in every domain of human thought and endeavor. From the beginning of the world progression has been dominant. The constant moving-on has been a fact, and to each, in his particular walk, has been given an incentive to do better than he has done or than has been done before. So century after century and age after age has seen some great development to make that century and that age excel its predecessor. Architecture was developed from simple, crude construction to the wonderful grandeur of the eighteenth century; music, from mere combination of different tones to the exquisite harmony and the powerful, robust, meaningful expression of the young twentieth century; painting, from the inartistic, motionless, meaningless daubs of its infancy to its present apparent perfection in outline and color; medicine, from the incantations of the ancient priests and medicine-men to the present wonderful scientific developments.

Then came the age of invention—progression that was to make possible the things that had been impossible; that was to make unheard-of things do undreamed things; that was to make the earth yield the inani-

mate to do the work of man; that was to make machines, needing but to be watched and fed, do a hundred-fold the work of those who were to watch and feed; that was to veer the minds of men from things beautiful to things wonderful. The brain of one was to invent that brainless others might do the work infinitely more quickly than had been possible before, even by capable hand workers. Nimbleness of hand was to supplant quickness of head. All was to tend, as it has tended, toward indigence, laziness, and the ambition to possess the most by doing the least.

This progression has made possible the accumulation of wealth for the few; greater and increasing poverty for the many. It has made ease and comfort the things to be desired beyond all other things. It has so deluged us with things before unheard of, and so unnecessary, that we have learned to look upon them as commodities rather than luxuries, needs rather than desires.

### **The Watchword Is Commercialism**

The world of today is aggressive. Its occupancy is largely that of commercial enterprise, and in this field in large measure are found the men we are accustomed to consider the strong men of today. In the smaller cities we point with pride to the large factories, to the great stores,

and sing praises to the heads of these, for we know that they are successful, we know that they are strong. In our great cities these establishments pale before the glamour of the stock exchange, and to the dare-devils in these institutions we turn our eyes, filled with a mixture of admiration and envy.

It is the desire to emulate these men, to possess the luxuries of life which wealth can bring that has resulted in the present-day commercialism. But commercialism as it is now generally understood is not commerce—it is not merely the spirit of trade.

Emerson defines commerce as the taking of things from where they are plentiful to where they are needed. Elbert Hubbard says: "We change men by changing their environment. Commerce changes the environment and gives us a better society. To supply good water, better sanitary appliances, better heating apparatus, better food served in a more dainty way, these are the tasks worthy of the highest intelligence and devotion that can be brought to bear upon them. . . . We benefit ourselves only as we benefit others. And the recognition of these truths is what today placed the business man in the forefront of the learned professions—he ministers to the necessities of humanity."

But with all due respect to Fra Elbertus, I would ask who ministers to the happiness and well-being or the life of others more than does the doctor?

#### The Good Doctor Is a Good Business Man

The really good doctors must be business men—commercial in the sense that they must satisfy their customers—this is commercialism in the highest sense. Instead of adopting the old maxim of the business man, "*caveat emptor*," the doctor's duty lies in these words, "*probus esse agrotis*," and by being honest with our patients we should conscientiously do our best to relieve their suffering and to keep them, if possible, from becoming sick.

The "commercialism" of treating a patient unnecessarily, of taking advantage of his misfortune to frighten him into being

treated indefinitely or operated on unnecessarily for the sole purpose of extracting a little more money from him, is not "business"—it is downright dishonesty. The physician who prostitutes his profession by frightening and then *literally* robbing the sick is a more contemptible robber than the "footpad." To take unfair advantage of a customer or a patient may be good "commercialism" as the term is generally understood, but it certainly is neither a good business method nor an honest one.

Up-to-date commercialism seems to be, in the majority of instances, a method of dishonest and remorseless money-getting.

A contributor to *The New York State Medical Journal* has put it well when he said: "Only evil minds are willing to use the necessities of their neighbors as a robber uses a jimmy to pry his way into a fortune and possessions rightfully belonging to others. It is not possible to commercialize the learned professions without loss of influence on their part, and society can ill afford a wastage which is as dangerous as it is difficult to replace. . . . The administration of justice, the preservation of health, and the ministration of religion have for ages been occupations set apart. They are all concerned with the fundamentals of life, the things which men hold most sacred and most dear. They cannot be vulgarized without irreparable loss to society. The administration of the law is not a commercial but a sacred function. The care of the sick and helpless is not a sordid trade but a high and holy office. The profession which seeks to give shape and direction to man's longing for higher things, which cherishes his hope of immortality, is influential and helpful in proportion to its dissociation from financial considerations."

Wealth, I know, is, by popular vote, the God of the Universe, and at its shrine is a mighty bending of knees. Money, the antidote for whatever ails us, is the goal, and we would fain bare our heads to the multimillionaires. Money is the pennant, and he is victor who gets it in largest quantity.

The days seem to have passed when method was questioned, for no crime is too

great seriously to interfere with the work of obtaining it.

"A certain ten percent," says an English political economist, "will ensure the employment of capital anywhere. Twenty percent will produce eagerness. Fifty percent, positive audacity. One hundred percent will make it ready to trample on all human laws. Three hundred percent, and there is not a crime at which it will scruple nor a risk it will not run, even to the chance of its owner being hanged."

All the ten commandments fade away like the stars at sunrise, and were there twenty they would fade as easily. Hatred, covetousness, lying, stealing, murder, the robbing of widows, the pauperizing of orphans—all these obstacles are laughed at.

And yet we look upon our men of wealth with admiration. We envy them. We speak of them as our solid, substantial men, and would be used as their door mats could we obtain their favor. Money is the God of the Universe.

They are strong who go in for it and win. Method! Rodents! Rats! Go for it and get it!

This is no idle talk, for should you, reader, nose around a bit and hunt things out for yourself, it would not be an easy task to find one who has accumulated in large measure, as this term implies today, who would be able to unroll to a clean record.

It is a hazardous race, this money getting and one so fascinating that it controls every thought. Those entering in order to hold high position must be very strong. They need strength in quantity to withstand temptation—often the temptation to be honest.

Look at our guiding-stars, the shining marks in the great financial world, men of colossal strength, courageous, determined, selfish, broad yet narrow, merciless, conscienceless, successful; their whole lives keyed to the highest pitch, their souls focused upon investments, bank accounts and greater accumulation; their lives crowned with a victory greater than they hoped—all this, but nothing more. And Death just blots them out, separates them from their accumulating,

leaving them as life found them. They have accomplished nothing that is of any value or that will not die with them, except in rare instances, as in the case of a Rockefeller, who gave Chicago her great university and to the world that beneficent institute for medical research; but all this from the surplus of his income; and then a Carnegie, who established public libraries in many, many cities, principally for the purpose of dissipating his great fortune while yet alive, and incidentally desiring to be called a philanthropist the time he has ears to hear. But even these two are giving without effort or sacrifice of the truck they do not need, and while they are on the last laps of their journey.

True, all these men are of value to humanity. This I do not deny. They have created great industrial enterprises; they have made possible the handshaking of the East and the West; they have opened up the earth, giving to us its hidden treasures—the coal, the oil, the metals; they have made employment for countless thousands of men.

Still, we have no possible reason to thank these men for these things. Indeed, I doubt whether thought of thanking them has ever entered the mind of anyone, for neither charity, philanthropy, nor even kindness, has entered into their dealings as manufacturers or employers. Their whole lives have been devoted to commercialism, and with keenness, shrewdness, oneness of purpose and desire, they have used humanity as they have been best able and for their own personal advantage.

#### Selfishness Is Their Motive

If these financial giants have done good to the world, it was because doing good has been necessary to their own success. It has not changed their methods or ambitions when evil has resulted. They have strength—the strength to concentrate and act; the strength to realize their ambitions; the strength to jump over or sweep aside all obstacles. We admire it and envy it as we admire all things powerful; but it does not warm us, for it is cold, calculating and fearful. It is cruel, annihilating strength.

And the libraries of Andrew Carnegie, magnificent structures though they are, impel one to feel that they were thrown at the people to gratify another phase of that selfish ambition of the donor, for he was determined that they should be monuments to him. "Carnegie Libraries—Immortal Structures!"

Yet this same man, and the patron of the University of Chicago, and the other gods of the money-world, lovers of humanity for what they can profit by it, would pursue identically the same course should something happen. And it is this: Should diminution of income seem probable, they would correct it forthwith by cutting the lesser incomes of their subordinates—their cattle. It would be their right because of their strength; and criticism, censure, condemnation would be of trouble only to those who would kindly offer them.

But there is another class of strong men—strong as these others, but in a different way. They are less pretentious, seldom rich, very often even poor. Yet these are the ones whose strength is of real and lasting service; who often suffer that others may be benefited; who give the best that is in them that good may be the result. "For the good of others" has ever been their aim, with no thought of reward for themselves save the recognition of the world that they have done something of *real worth*.

In the field of invention we think of Fulton, Cooper, Franklin, Morse, Edison, and the many others who have spent their lives in the advancement of science that those living and those yet to be born may reap the benefits.

In the field of medicine we recall the names of Virchow, Koch, Jenner and Grenfell, to say nothing of the thousands of nameless country doctors, like Doctor MacClure in "Bonnie Briar Bush," who are doing what they can to help the sick and distressed, with no hope of fame or great pecuniary reward.

Then in the field of literature we will find the names of many, strong, courageous and noble, whose work has been of inestimable value to mankind, uplifting, inspiring, and

making more beautiful the world in which we live. Who will say that Tolstoi, Morris, Emerson, Henry George, Ruskin, Thoreau, Maeterlinck, Whitman, were not men of strength? And who will not say that their strength is the strength of value, the strength that warms, comforts and does good?

And who will not say that the thoughts, and the words, and the deeds of these and their brother workers are the sunlight dispensed by those who love? Ah, how different are the strong who have become strong in *doing for others* than those who have become strong in having others do for them. This is the strength that, it seems to me, is Strength—deserving of all praise, and far more worthy of emulation than the strength of those who have accumulated only wealth, and that by means of shrewd selfishness.

#### Poverty Must Not Be Glorified

But I do not wish to belittle the value of money.

It is easy to point out the dangers resulting from a too intense devotion to money-getting, but whatever may be said of the dangers of riches the dangers of poverty are tenfold greater. A condition in which one is exposed to continual want, not only of the luxuries but of the various necessities of life as well as to disease and discouragement is exceedingly unfavorable to the exercise of the higher functions of the mind and soul.

The poor man is hourly beset by spooks of temptation which the rich man never knows. Doubtless the highest virtues are sometimes found to flourish even in the soil of poverty. Not only industry, honesty, frugality, perseverance amid hardships and ever baffling discouragements, but much more miraculous attributes, as meek contentment, severe self-sacrifice, tender affection, unwavering trust in Providence, all are found blooming in the hearts of the poorest of poor—even in the sunless regions of absolute destitution, where honesty might be expected to wear an everlasting scowl of churliness, and a bitter disbelief in the love of God to accompany obedience to the laws of man. But it is the most insufferable of all things to hear these qualities spoken of

as if they were indigenous to poverty, when we know they flourish in spite of it.

¶ We have had enough of that silly sentimentalism which would canonize the poor, because they are such. Poverty is a condition which no man should accept unless it is forced upon him as a necessity or as the alternative of dishonor. No person has a right voluntarily to place himself in a position where he will be assailed hourly by the fiercest temptations, where he will be able to preserve his uprightness only by a strength little short of angelic, and where he will be liable at any moment to become by sickness a burden to his friends. Every man, too, should make some provision for old age, for an old man in the poorhouse or begging alms is a sorry sight and suggests the suspicion, however ill-founded, that his life has been foolishly spent.

#### Money the Main-spring of Action

I say, therefore, that the philosophy which affects to teach us a contempt of money does not run very deep. Indeed, it ought to be clearer to philosophers and to other men that money is of superlative importance, and that its importance increases with every successful generation.

It is money, or rather the want of it, which makes men workers. Money is the appetizing provocative which teases the business-nerve of more than half the world; while most of the results of ingenuity, skill, intellect, tact, address, and competition, depend upon its unremitting pursuit. Want of money is the great principle of moral gravitation, the only power that is strong enough to keep things in their places. It is this scantiness of means, this continual deficiency, this constant hitch, this perpetual struggle to keep the head above water and the wolf from the door that keeps society from falling to pieces. Let every man in the community have, as a rule, a few dollars more than he wants, and anarchy would follow.

As civilization advances, human life becomes more and more significant, richer in opportunities and enjoyment. Science is multiplying with amazing rapidity the comforts and luxuries of life and the means of

self-culture, and money is the necromancer by which they are placed at our disposal. Money means a tight, well-built house, the warmest clothing, the most nutritious food, the best medical attendance, books, music, pictures; a good seat in the concert- or lecture-room, in the cars, and even in the church; the ability to rest when weary in body or brain; above all, independence of thought.

Every step in life is conditioned on "the root of all evil." You must pay to eat and drink, to sleep, to house and to clothe yourself, and even to breathe. Every breath is a consumption of carbon, which must be paid for as inevitably as the coal in your grate. The creditor is at every man's heels, dogs him in his last moments, and hardly stops short at the graveyard gate.

Not only is money thus indispensable, but the value of this representative of values was never before so great as now. With this talisman a man can provide himself with richer means of enjoyment, secure a more varied and harmonious culture, and set in motion grander schemes of philanthropy in this twentieth century than at any other previous period in the world's history. And precisely because it means so much, because with it life is so rich in possibilities, the want of money was never before so keenly felt as now.

Want of money is the almost universal disease, which alone will explain the weight and sadness which one so often finds in the social atmosphere.

Let us, then, abandon the affectation of despising money and frankly own its value. Let us admit even that more persons are ruined by underestimation of the value than by greed of money; that even in our great cities, where life is at white-heat, and men stake body and soul on the prizes of the stock-board, there are twenty men who need incitements to industry and frugality where there is one who needs to be checked in the pursuit of riches. But let us remember the danger of forgetting the ends in the means, and attaching more importance to gold itself than to the things which it will purchase.



The owner of capital is but a kind of head bookkeeper or chief clerk to the business community. Though rich as Carnegie, he can neither eat, drink, nor wear more than one man's portion of the good things of life. Rockefeller, whose wealth is counted by hundreds of millions, is, after all, only the steward of the nation, and however selfish, grasping or miserly he may be, he is compelled, even when he least desires to do so, to use his accumulations for the public good. His money-making talents enable him to employ profitably the capital, which soon would melt away in the hands of a spendthrift or a financier, to promote the common welfare.

#### **The Right and the Wrong Valuation of Money**

Money is a good thing which every man should try to secure in order to avoid dependence upon others, but it is not so good a thing that, to win it, one should stoop to a mean or dishonorable action or give his conscience a single pang. Money getting is unhealthy when it impoverishes the mind and dries up the sources of spiritual life; when it extinguishes the sense of beauty and makes one indifferent to the wonders of nature and art; when it blunts the moral sense and confuses the distinction between right and wrong, virtue and vice. Money getting is unhealthy when it engrosses all one's thought, leads a man to live meanly and coarsely, to do without books, pictures, music, travel, merely for the sake of greater gains, and causes him to find his deepest and most soul-satisfying joy, not in the culture of his heart or mind, not in doing good to himself or others, but in the adding of dollar to dollar in the knowledge that his riches increase every year, that he is adding bonds to bonds, mortgages to mortgages, stocks to stocks, and may say to himself, "Soul, thou hast much goods laid up for many years."

There is, indeed, no more pitiable wretch than the man who has mortgaged himself, soul and body, to money; there is no more painful spectacle than to see a man dragging his manhood at the heels of his employment, losing a life for the sake of the means of liv-

ing, disregarding the celestial crown held over his head, and raking to himself the straws, the small sticks, and the dust of the earth. The poorest of all human beings is the man who is rich in gold but intellectually and spiritually bankrupt. After the utmost that can be said of the necessity and value of money, it still will remain forever true that life is more than the means by which it is sustained, more than dwellings, lands, merchandise, stocks, bonds, dividends; more even than food and raiment. All things are for the mind, soul, the divine part within us; and if this, our true self, is dwarfed and starved, the most royal worldly possessions only serve to set forth by contrast deep poverty and servitude.

Let everyone who wishes to get on in the world justly estimate the value of money. Let him neither, on the one hand, make it the only aim of success, nor, on the other, affect for it a philosophic contempt which the necessities of life will compel him to unlearn. Let him neither strive for a mere living nor for a great fortune, but gather gear, as Burns says,

. . . By every wile  
That's justified by honor;  
Not for to hide it in a hedge,  
Not for a train attendant,  
But for the glorious privilege  
Of being independent.

At the best, life is a battle royal in which each one engaged hopes, at some period, to win out. The desire is real to excel in whatever field he may be engaged.

#### **Ambition, Honorable and Sinful**

The physician dreams of a discovery in the field of medicine; the merchant looks toward a great establishment; the painter would do the work of Rubens or Rembrandt, or Millet; the musician would surpass Chopin or Mendelssohn; the literature looks to Thackeray or Dickens, Ruskin or Emerson; the laborer imagines that some day he may be the employer. All have ideals: all look forward to some day stepping out and up, to better their own conditions, to advance their profession, or to better the conditions of those around them, by some new thought, system or discovery.

And such an ambition is truly admirable, but only so when honesty of purpose guides in the development.

But sadly true it is that selfishness cuts in slowly at first, only to grow until it overpowers. Honesty of purpose becomes determination for gain, and the beauty of it all is swept aside by the desire for wealth that will make ease and luxuries possible. Then indeed is there danger—for the temptation is great, and easily fallen is the tempted. The end to be attained is alluring and far more nearly within reach than that to be made by hard, never-ending and often unsatisfactory struggle for honor, fame, or even acknowledgment in the world of science, letters or art.

Ambition is a sin when the mind becomes warped and twisted by selfishness. Its energies are bent toward shrewd, calculating sharpness. Honesty has become a secondary principle; friendship is an unknown quantity; brothers are enemies. Narrowness, treachery and absolute dishonesty are factors often brought into active use both in business and professional life.

In business, in the professions and in art wealth is first considered. By it success is measured. They are the ideals of those who have accumulated. That is entered into most largely in which wealth is most easily obtained. Sentiment cannot exist, love is foreign, honesty is an after-thought in present-day commercialism. "Business is business."

Pessimistic? Not a bit of it.

For proof positive look upon those who have kept their heads above their ken in this accumulation business; at those "successful" in business and in their profession. You will discover that the policy of Self—self first and always—has been religiously followed.

In mercantile affairs—and nowhere is there better opportunity for good, true, honest work—they who have realized their ambition and attained the remarkable success that may be seen in our great establishments are the ones who have not scrupled in their efforts to "get there." I refrain from commenting on certain "successful" physicians. Hard, cruel, cold-blooded business

competition, the bane of civilization, has cut out the pace for the slashing, killing, do-your-neighbor work. The motive seems but that the few may trample under foot the many; that the big dog in the fight may down the smaller one.

#### Whose Is the Blame?

But these "successful" ones are not to be blamed for their success. They are but in keeping with today. You and I are more or less at fault, for we are the ones who make these things possible. We purchase of them in the spirit in which they sell to us; we are trying to buy cheap goods, cheap medical attention, cheap everything; trying to get the best of the merchant, the doctor, the lawyer, the artist, the writer. Their motive is as ours. Their effort is to give us the least for the most; our effort is to get most for the least. Thoughtlessness and selfishness, or perhaps thoughtless selfishness unacknowledged, but existing nevertheless, prompt us in our dealings.

Shameful is it that such conditions exist; that there are prosperous establishments paying insufficient wages and with the knowledge that they *must* be supplemented to insure clothes, bed and food.

This condition does exist, for in every city of importance may be found proof of it, and to it may be traced, in large measure, the immorality often necessary to life, especially in the young women of our stores.

Shameful, too, that there can be found conscienceless, rapacious lawyers and doctors who disgrace their profession by taking advantage of their unfortunate clients in order to make a few more dollars!

But speed the day that may come when we shall understand that there is no virtue in an article or in professional advice when it is cheap; that quality is of far more importance than quantity; that a good article always commands a good price; that labor is a price-regulator the world over.

And speed the day, too, when men and women will consider the method of production; when sweat-shops will be things of the past; when department stores, factories, and all other establishments will be con-

ducted on humane principles; when wages will be given those at work sufficient to warrant their living without crime. And speed the day also when it will be possible for every one to do the work he *loves* to do, and not that he *has* to do; when hand and heart shall work together, making every portion of his labor consecrated by Love.

Then, and not till then, will Commercialism be characterized by Idealism, will retrogression have ceased and true progression begun. Then will success in commercial and professional life be possible to those honest, straightforward and unselfish. Strength to live up to our highest ideals is what is most needed; the strength to do; to uplift; to inspire; to help; to be unselfish; to be noble; *to be honest*.

These are a few things we need to inject into commercialism, and if we do these things we shall be successful and happy, for we shall be working for the happiness of

others. The creating of happiness is the greatest thing in the world. It is the work of the Strong Man. It is Strength itself.

In closing I can say no truer words than these:

"We have come to the parting of the ways. One way is easy to tread. It is the path of the self-seeker and the man whose eyes are ever close to the earth. 'Fill the purse' is his motto. The end of that path we cannot see for it vanishes in mist and gathering clouds. The other path is not easy. It requires self-denial, self-control, lofty thinking and right living, but it leads to the stars, and the man who treads therein shall lie down for his final rest with a stout heart and a calm and contented mind. The profession which treads this path shall earn and hold the respect and love of mankind, and its glory shall shine like the stars, forever and forever."

## Handling the Cholera in the Philippines

*The Difficulties of an American Sanitary Officer in the East—  
and How He Overcame Them*

By THOMAS E. MOSS, M. D., Bontoc, Mountain Province, P. I.

President Board of Health and District Health Officer of the Mountain Province

**Y**OUR letter, asking me to write something for CLINICAL MEDICINE was forwarded to me at Tagudin where I had gone in response to a request from the municipal president asking me to come to that town and see what I could do toward getting the town clear of an epidemic of dysentery and measles which was killing off the children and the aged.

### Tagudin and Its Troublesome Typhoons

The town of Tagudin is situated on the coast and is the gateway to the Mountain Province; it is where most of the supplies for the province are unloaded from the ships, though there is another coast town some twenty miles farther north where the larger and more timid ships discharge their cargo, for there is no harbor at Tagudin, only an

open coast, and the big ships are afraid to come in, since there is nearly always some fool typhoon chasing around over these islands and the China Sea, and this is liable to strike anywhere, and if this happens to be the case when one of the large ships is discharging her cargo at this place she is pretty likely to go ashore as the swell is very heavy on account of the depth of the water at this place.

Tagudin and the surrounding country is peopled with one of the worst set of Filipinos to be found along the entire coast; they are mean and hard headed, and above all are averse to sanitation, which, of course, is my specialty in my present capacity, and in fact right in Tagudin was the battle-ground of my first fight with the dreaded Asiatic cholera.

On November 6 I was borrowed from the Philippine Constabulary by the Bureau of Health of the Philippine Islands for the purpose of taking charge of the cholera situation at Tagudin, which was pretty bad and seemed to hang on in spite of everything that could be done. I arrived in Tagudin, November 8, 1908, and found the disease scattered all over the country, in the town and out in the *barios*, showing that no headway was being made toward quarantining it and getting it confined.

#### Cleaning Up the Town

I immediately went about getting the town cleaned up, which was no small matter as there had recently passed over this place one of the "aforementioned" typhoons, leaving it in a very bad condition. For about ten days before the typhoon struck it had been raining steadily up in the mountains of the interior and all the rivers were overflowing. When the typhoon began to blow in from the ocean and bank up the waters the town was quickly flooded, the water rising to a depth of five or six feet on the plaza, which is always the highest spot in these towns and generally is in front of the invariably present catholic church. Right here you can see some good these churches do in this country, for in times like this the people go there for refuge. (I can not stop here to take up the subject of churches in the Philippines, for that is a story in itself. Suffice it to say that they are all right and especially the Belgian fathers. I have never met a nicer class of men.)

In this instance the people of the town all managed to get to the church and stayed there until the flood subsided. This is about the only good thing one can say of a typhoon, that is, it does not last very long, in fact could not, for if it did there would be nothing left, since it annihilates everything.

When the water disappeared it left the town covered with drift to the depth of four feet. This drift had been brought down from the mountains; there were great logs which had lain for years in the interior, from whence it would have been impossible to remove them in any other way except by the

water. Not only were these great logs and trees brought down but every bridge which crossed the mountain rivers was torn out and the timbers came down and were stranded in the town when the water went down.

#### Unsanitary Conditions of the Town

All this drift left the town in a very unhealthy condition as you can imagine, and it had to be cleaned up and burned. Then closets had to be provided and the people instructed how to prevent the taking of the disease, as by boiling the drinking water, thoroughly cooking all food, eating nothing raw, etc., all of which they very promptly forgot or refused to do. However, by quarantining every house and all persons exposed I finally got rid of the cholera, but not without a great deal of work and much annoyance, for the people did everything they were told not to, and nothing they were told to do, unless they were compelled to obey.

On one occasion I had quarantined a house in one of the *barios*, some five miles out from the main town, where a woman had died. I had stationed police guards around the house to prevent those who had been exposed from going out and to keep those on the outside from entering, but not being satisfied with the way things had been going and the continued spread of the disease I went out to the house during the night to see how things were progressing. I found that the police had left the house and gone to another part of the *barios* to sleep, while inside of the house, laughing and talking, I found about twenty people who had come all the way from Tagudin, five miles distant, to see the dead woman, knowing perfectly well the nature of the disease, and knowing that they were acting positively against my instructions.

I immediately quarantined the whole lot and called for constabulary guards. I did not trust the police any more during the epidemic. Consequently I soon had the disease "out of commission," only one case developing after that. This other case is worthy of mention because it shows some other things I had to contend with.

One evening, about four days after this incident just reported, I was notified by one of my sanitary inspectors that a woman had just died in a house in the main town. On going there I found a typical cholera corpse, and on inquiry I elicited the information that the woman had been sick only an hour or so, that she had come in from the rice fields at one o'clock and died immediately, it being about three o'clock when I saw the corpse. I quarantined everybody I could find in and near the house after disinfecting it and then set about finding out the truth, for I did not believe the woman had died so suddenly, since it was near the close of the epidemic, when one would naturally expect to find a milder form of the disease.

On investigation I found that the woman was the "*carida*" of the vice-president of the village, that she died at daybreak that morning, but had been sick since the evening of the day before, that the vice-president had been to the house frequently and knew all about the case. I sent a policeman for him and threw him into quarantine in the infected house and kept him there for four days, and would have put him in jail, but as I had some of the police force in custody at that time I was afraid that if I kept on and got all of the officials in the jug there would be no one left to run that part of the Province with, so I gave him a "good cussing" and let him go.

This goes to show the troubles I had, for who would suppose that a Government official would hide a case of cholera and let people go in and out of an infected house, besides going there himself, then go to his brother-in-law's house where there were a lot of little children; but the Filipino is a funny combination. He says, "I wont die until *Dios* wills it, and I can not die but one time, so —no *importe*."

Of course all this happened nearly a year ago and I intended to write you something about it then, but after getting rid of the epidemic I resigned from the Constabulary and accepted an appointment with the Bureau of Health as District Health Officer of this, the Mountain Province; and as this is, comparatively speaking, a new province,

I have had my hands more than full ever since I have been here.

The whole thing had to be organized and set on a firm basis, and as my jurisdiction is about two hundred miles long by ninety wide I have to move and keep moving, and the moving is not easy, since the whole province is mountainous, and some of the mountains are eight thousand feet high, where two blankets are not too much to sleep under. Also, some of the trails are killing in more ways than one.

#### The Danger of a Mountain Trail

One way was forcibly brought to mind the other day when I returned from Tagudin, where I had been called to look after an epidemic of dysentery and measles. I received a telegram, stating that an accident had occurred in one of the road-camps down near the end of the trail, near Tagudin, so notwithstanding the fact that I had just come from there I had to turn round and go back and found three dead men and eight wounded. These men had been at work up on the face of a high cliff, drilling holes preparatory to blasting out a place for the trail which had been carried out by the typhoon which almost destroyed the town of Tagudin.

While these men were drilling, about two tons of rock began to fall from above them, and in trying to get out of the way some of them pushed others off to their death below. Others in turn fell themselves, sustaining more or less severe injuries. This particular cliff or mountain side is very dangerous, for the formation is not solid but consists of fragmentary rocks, so that when a blast is set off the whole mountain side is loosened to some extent; and although after each blast the loose rocks are cleaned off from above to prevent just such an accident, it is not always possible to leave it safe, for now is the rainy season and even though a rock seems to be stuck fast a little rain will loosen it and make it liable to slide at any time.

This trail from Tagudin to Cervantes is one of the most beautiful bits of scenery I have ever seen, as it begins at the seashore



and gradually rises for forty miles to a height of five or six thousand feet, passing up a valley and zigzagging up the mountain side, through a tropical forest and the most varied and beautiful variety of flowers and ferns that can be imagined. There are orchids and beautiful plant-parasites of every description—there are begonias, tree ferns, birds-nest ferns, strawberries, raspberries, morning glories and everything imaginable—all can be found in the greatest profusion at some stage of the trail. Then, when the top of the highest point is reached, one may look back and catch a glimpse of the China Sea in all its glory.

As one passes through the cut in the top of the mountain the scene changes abruptly, looking down on the city of Cervantes. The smell of pine is sweet in one's nostrils, yet on the slope up which he has just come there is not a sign of pine, nothing but tropical forest; but on the top and over on the Cervantes side the great pine trees begin, and they are found on this side down as far as the climate will permit them to grow. The descent is abrupt—nearly straight down—and it only takes three hours to make the descent.

One may stand on the top of the divide and look back to the coast and see nothing but vine-clad, tropical, timbered mountains, then on turning around and looking toward the interior he sees a forest of pine with no undergrowth—nothing but a carpet of pine-needles, and at certain times of the year great clusters of mountain lilies, which are perfectly white and almost the counterpart of the Easter lily at home.

#### Abrupt Changes in the Philippines

This abrupt changing of scenery is not uncommon, nor is this kind of thing limited to the scenery, for ever since I have been over here I have noticed it, especially with regard to flowers, birds and butterflies; the colors will change from bright red to bright green, and there will be no shading to soften the effect—one color will stop and another

begin, and sometimes it is the most bewildering thing imaginable. I have often wished I had time to make a collection of the butterflies especially, for there are thousands of them, of the most variegated colors one could imagine and of every size and description. Some that I have seen are nine or ten inches in diameter, that is from the tip of one wing to the other.

#### Rice Cholera

This butterfly business is rather out of place in a medical journal so I will get back to things more appropriate. I can not promise to stay there, but you may rest assured that my everyday work will be along medical lines, for it is the time of the year here in the mountains when the tribes are suffering from epidemic dysentery or, as I have named it, *rice cholera*, and I think this a better name for the trouble which begins at the rice harvesting time when the people are celebrating the *rice canao*, eating and drinking to excess, and especially eating the rice which is left in the jars after the "*bobud tapoy*" has been drunk.

This alcoholic drink is made by roasting a quantity of rice and putting it in a jar with a little yeast made of rice flour. This is allowed to ferment for a few days and is then drunk, and when fresh it is a very pleasant drink, sweet and mild; as it becomes older it contains a good percentage of alcohol and a little later is vinegar. It is drunk in every stage, and the rice which remains at the bottom of the jars is eaten. This, with new rice half cooked or raw hog meat, makes, or predisposes to, the disease, "*rice cholera*," which kills so many of them.

I have not thoroughly investigated this disease, only so far as the treatment goes, which is simple. A mixture of bismuth, sulphocarbolate of zinc and camphor will cure it in a short time, with the stimulants necessary in the algid stage. The disease is communicable and resembles true cholera in many ways.



# Some Cases of Perineal Rupture

*With a Description of the Technic*

By **W. H. MAYFIELD, M. D., St. Louis, Missouri**  
Surgeon to the Mayfield Sanitarium

**P**ERINEOPLASTY is an operation for the restoration of a lacerated or ruptured perineum. Twenty-six years ago I began to do this operation after the method of Lawson Tate (Birmingham, Eng.), because I believed his to be the best method in vogue at that time, still, at the same time I could not convince myself that preserving any portion of the cicatricial tissue involved was the proper thing to do, nor that the stitches should show in any part of the denuded surface. After much thought on the subject and a large number of operations I formulated the operation since known as the "Mayfield method."

## Technic of the Mayfield Method

This operation, briefly, consists in making a diamond-shaped denudation of all the lacerated parts, leaving the muscles of either side evenly excised, so that their ends coaptate readily when the first, or primary, stitch which circumscribes the entire denuded surface is brought together. Silkworm sutures are introduced and carried around the entire denuded surface in the same way as the first stitch. Then the primary stitch is tied and the silkworm sutures close the wound. If, however, the bowel is also ruptured, then its margins are denuded and catgut sutures are introduced, armed with a needle on each end of the suture, one needle being introduced on the right side of the wounded bowel, the other on the left. The suture is tied subcutaneously, the knot and end of the thread being within the rectal canal. Like sutures are introduced and tied as introduced, until the rent of the bowel is completely closed. Now that the rent in the bowel is repaired, and the perineal tear having been previously denuded, the perineal stitches are introduced and tied and the operation is complete.

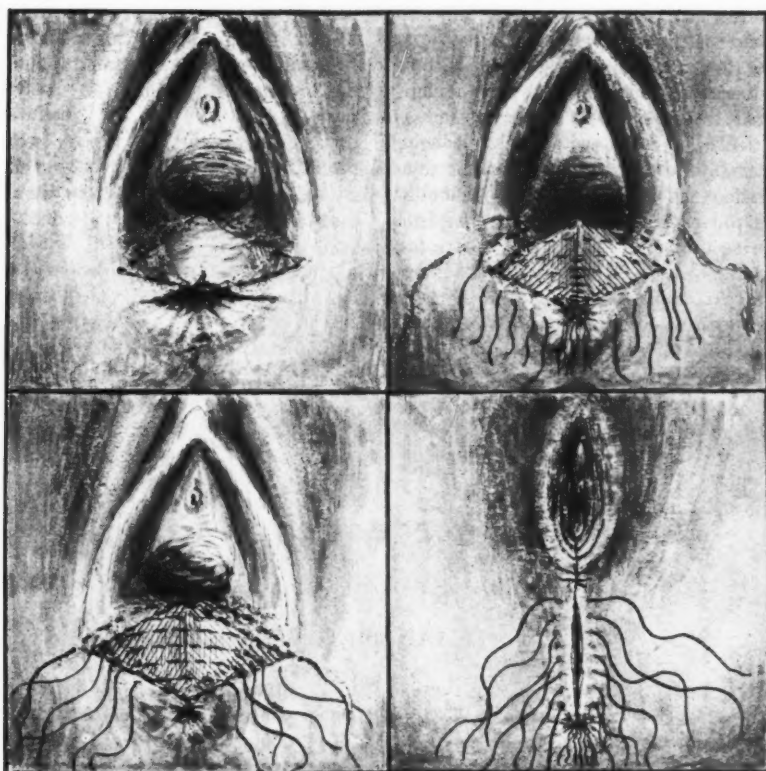
The technic of this operation, if well followed out, is simple and complete, and recovery of ninety-and nine out of a hundred cases can be expected unless constitutional or other diseases interfere.

This operation, having a diamond-shaped denuded surface, admits of the approximation of the lateral margins perfectly. The stitches are allowed to remain from five to six days, the parts being irrigated with dioxigen and this followed with a douche of lysol daily, or twice daily if need be. Adduction and tying of the knees together are entirely done away with, and abduction is substituted. In three or four weeks the patient is well and ready to go home.

## Claims for Priority

In 1895 I read a paper on the subject before the State Medical Association then in session at Hannibal, Mo., in which I described and illustrated my method. (See "Transactions Missouri State Medical Association," 1895, beginning at page 335 and including the twenty pages following.)

About that time another operator began doing an operation similar to mine, but entirely too late to claim priority to my operation, as I had then completed 329 operations after this method. In discussing my paper Dr. I. N. Love of St. Louis said: "There can be no question as to Dr. Mayfield's claim to priority in the operation he advocates. This statement is made because recently another operator has declared himself the originator." Dr. Love said some of Dr. Mayfield's cases were reported to the St. Louis Medical Society at least five years prior to 1890, long before anyone else had ever attempted this method. "Justice to Dr. Mayfield," he concluded, "demands recognition of his rights to whatever praise is deserved for this mode of treatment of lacerations of the perineum." I have now



A graphic illustration of the different steps in Dr. Mayfield's operation for repair of the perineum

performed over sixteen hundred operations after this method.

#### Some Cases of Perineal Repair

I could fill many pages with exciting and interesting cases under this head, as it has been the larger portion of my surgical work, with results so satisfactory to myself and to my patients that I now seek to impart its worth to others.

A lady, Mrs. M—, aged 50, residence, Missouri, wife of a high official, mother of four children, had her perineum completely lacerated at her last parturition. Her mind became greatly disturbed though she was mentally and physically strong, and finding herself totally disabled for life, she became very eccentric, which after years of suffering resulted in separation from her husband—

a most pathetic case. I operated after the Mayfield method, which resulted in a complete restoration of all the functions, a tranquillization of mind, and a reunion with her husband.

I cite another like case whose condition had so upset the wife's mind that she had been confined to an insane asylum, being more eccentric, however, than insane. She was permitted to leave the asylum and came directly to me for operation, which, after due preparation, I performed with the same success as in the foregoing case.

Still another case is that of Mrs. M—, residence, Texas, aged 26, wife of a merchant. She was completely lacerated at her first parturition, the rent extending three inches up the bowel. She had been operated on five times before she came to me, but each

time the stitches had sloughed out. She became hysterically nervous and spent much of her time crying, having no hope for future usefulness. A lady who had been similarly injured and afterward cured at our institution urged her to come here, persisting, and finally coming with her. After much hesitation she submitted to my operation, which proved entirely satisfactory, completely restoring the bowel and vagina. Since then she has borne three children, coming here for each confinement, as have many other ladies upon whom I have operated. She is a grateful and happy woman.

This paper is purposely short, as I only wanted to call attention to the simplicity of this method and the ease with which it

can be performed and with which the wound is hygienically cared for from the start, and to the quick results obtained. I don't think any physician needs to see more than but a few operations of this kind until he can do the work with perfect ease. The after-treatment of course is of great importance, the stitches all being inserted between the rectal surface posteriorly and beneath the denuded surface anteriorly and therefore hidden from sight or buried except where they merge from the margin of the wound on either side, thus rendering a union by first intention sure when the vagina and external parts are thoroughly cleansed night and morning, as before directed.

## Infantile Myxedema, or Cretinism

*With the Presentation of a Case*

By H. D. RYMAN, M. D., Vernon, Illinois

**T**HE patient, Pearl C., is a female 4 years old. The family history is negative, except that there is a fair possibility of phthisis on the maternal side. There are two brothers and four sisters, all being normal in every way, and all are healthy except one brother, aged 15, who presented nearly all the symptoms of an incipient tuberculosis this summer but responded readily to treatment.

The mother received quite a nervous shock at one time during the period of gestation, the father happening to sustain an accident in which his leg was broken. I mention this in passing only in order to say that investigation seems to have conclusively proved that the mental and physical integrity of the child in afterlife is not to be influenced one way or the other by such mental impressions. The physical or mental condition of the so-called "marked" child can be explained upon a reasonable basis if carefully investigated.

The parents first began to notice that something seemed to be wrong with the baby

at about eight or ten months of age; since which time they had continuously tried to do something for it, though with little if any success, until about the first of this year, when for two or three months it received no regular treatment, remaining in about the same condition all the time.

The condition of the child at the time of my first examination was that of a typical, well-developed infantile myxedema, or cretinism.

The baby weighed 19 pounds; could not crawl or sit alone; had eight or ten irregular and poorly developed teeth; constant ptalism; could not make wishes known; was dull, apathetic; had to be fed, being utterly helpless. From the mother's description the child seemed to be troubled almost constantly with bronchitis. The bowels were irregular with a tendency to constipation. The pulse was sluggish, beating about sixty to seventy times per minute; temperature 97.5°F.; abdomen very prominent. The child was restless nearly all the time and slept very poorly, waking almost every morn-

ing at about 4 o'clock and staying awake the rest of the day. The first picture will show the general physical characteristics better than I can describe them.

#### Treatment and Later History

On April 11 I began by giving one grain of desiccated extract of the thyroid gland of

a fight with an attack of whooping-cough, which she proceeded to handle with remarkable vigor.

The second picture was taken on June 20 about ten weeks after treatment was instituted, and about four or five weeks after the beginning of whooping-cough. At this time the cervical glands were enlarged and the general physical condition such that I



The patient before treatment

the sheep daily for three days, and increased the dose by one-half to one grain after every three-day period, watching the child carefully after each period for any untoward symptoms, until she was getting 6 grains daily in divided doses. Up to this time she had been doing nicely, was changing perceptibly from week to week, but now she began to be a little restless and nervous, so I reduced the dose to 4 grains daily. A little before this she took out a contract for



After the baby had been under thyroid ten weeks

took her off of the extract for ten days, and began giving syrup of ferrous iodide in 5-minim doses three times a day, continuing this for about two weeks with excellent results as to the general condition and marked alleviation of the paroxysms of coughing.

We resumed the extract after leaving it off for ten days, but after a week's treatment the emaciation seemed to get worse instead of better, so we left it off again. After four weeks of nontreatment evidences of the



characteristic facial expression and mental dullness again began to be noticed.

We were now up to the proposition of definitely determining just how much of the extract is necessary to this child's system, in order that the proper metabolic equilibrium be maintained. I began to give one grain of the extract three times daily continuously for about eight weeks, obtaining a regular gain in weight, appetite, strength, intelligence, the full development of all the teeth, and the acquirement of two or three words.

There have been two periods since of one week each when she did not receive any of the extract.

#### Two Important Points

The above is a fairly complete summary of the case, its treatment and course up to the present time. The two important points remaining for our consideration are: how much of the extract is necessary to the child's system, and, what is of greatest importance to the parents, the prognosis.

Some authors advise the intermittent administration of larger doses for a few days or a week, with three to five weeks' intermissions. Personally I believe that the regular administration every day in dose just enough, just as Mother Nature would do it herself, would prove more satisfactory.

The prognosis I believe to be very favorable as to the physical development, and guardedly favorable as to the mental development.

In the study of diseased conditions it is necessary that we should understand as nearly as possible the physiology, etiology, and pathology of the same, in order properly to understand the various symptoms with their proper interpretation, and to be able to give intelligent therapeutic advice.

#### The Action of the Thyroid—How Explained?

The physiology of the gland, up to the present, is not enlightening. The etiology of the hypo- or hyper-activity of the thyroid is likewise uncertain. The proper understanding of the pathology of a necessity must be lacking until the first two points are made

clear. Our treatment of the conditions must, therefore, be empirical, which to those who like to know just what and why they do a thing is anything but satisfactory.

How does the thyroid gland wield its wonderful influence upon the metabolism of the body?

Does this influence begin before or after birth?

Does the beginning activity bear any relation to the period of lactation?

How is the activity controlled?

What relation, if any, does the thymus gland bear to the thyroid?

What is the physiology of the thymus gland? Why does it atrophy in early life? What is the influence and what relation do the other ductless glands of the body bear to the thyroid?

These questions have all occurred to me while studying this case, and if anyone can enlighten me, I should appreciate it very much.

The child under consideration still continues to improve in every respect.

[This is a most interesting case, beautifully managed. The important thing to do is to exercise a constant watch over the little patient for a number of years. According to Osler's "Practice," 7th edition, 1909, p. 771, the thyroid extract is the only curative remedy at our command. The fact that the child lost in weight under its administration need not have caused serious alarm. Prof. Osler says that one of his patients lost 30 pounds within six weeks. Dr. Sajous ("Internal Secretions," 2d edition, 1908) also advises thyroid extract, which may be stopped for a while in case untoward symptoms arise, careful control being imperative.

I think I should attempt to combine or to alternate the drug with some form of iodine, perhaps giving both in alternate weeks. Keep the bowels open and the skin active. Be sure to tone up the general condition, and watch the temperature, which in these cases is almost always subnormal. Take great care that the little girl does not take cold, to which she is peculiarly liable. Calx iodata ought to be of twofold benefit,

giving the iodine in an easily assimilated form, and supplying the calcium in which the organism is deficient. The doctor should make it very clear to the parents that he must see his little patient frequently, at least once in a week, while taking the thyroid extract in full doses, less often while taking less or when under iodine. We have not the time or space to answer the many inter-

esting questions asked. Sajous gives the answers to several of them. The later textbooks on physiology also contain what is known about this difficult problem. We are interested in the case, and would ask the doctor to report again on it, say, in a year from now, or sooner if anything remarkable occurs regarding it, in the interval.—ED.]

## Cutting Short an Attack of Pneumonia

*A Method Which Is Effective During the First Twenty-four Hours*

By M. J. HOPKINS, M. D., St. Louis, Missouri

I HAVE been impressed with the fact that statistics on the death-rate from pneumonia, for the past one hundred years, show little or no material improvement under the various systems which have been and are now generally employed.

After a careful study of the subject, eleven years ago, I recognized there was no known specific in the treatment of pneumonia, therefore I concluded that all my efforts henceforth should be directed toward aiding the natural forces of the system in resisting and expelling the cause of the disease, and as a result I have not lost a pneumonia patient if seen within twenty-four hours after the initial chill, and but one patient, who was an alcoholic, seen forty-eight hours after attack.

We can all realize, in a beginning case of fulminating sthenic pneumonia, that a rapid process of general congestion is taking place. Then, with such a picture before us, it is easy to understand that not only the lungs but all other organs and tissues of the body are being infiltrated by blood-cells, under the high pressure. We can also agree that when an organ is congested it is handicapped in performing its normal function, in proportion, at least, to the degree of congestion.

If this be true, it would seem a rational procedure to unload the burden from every organ of the body in the shortest possible time and with the least possible resistance

and irritation, and then to keep them free. I might say such a condition would demand it. The question then is, what shall we do, and how can it best be done? My method comprises the following:

1. Thorough examination of the patient, bare to the skin, to learn the condition of each organ. We are then ready to administer our alkaloidal remedies in the most effective way.

2. Complete unloading of the alimentary tract and keeping it free.

3. Mild and continued dilation of the capillaries, promoting the activity of the entire glandular system.

4. Support of the heart and the nervous system.

5. Remembering the great importance of making the blood-cells hungry and thirsty so that they will feed on and pick up the exudation from the broken and other cells which infiltrates the congested tissue.

6. To accomplish which, practically no food is given for three days, and as little water as possible, only just enough to keep lips, mouth and throat moist.

7. Careful nursing, keeping the patient from rising, and when food is started, giving baby-foods, gradually increasing the amount to suit the strength of the patient.

My method of cleaning the alimentary tract is to have the patient drink three or four glasses of plain water, while I load my hypodermic syringe with 1-10 of a grain of

apomorphine, and if the heart is weak, 1-100 grain of digitalin. This I inject, and in from fifteen to twenty minutes the stomach is well emptied. The effect of the apomorphine is wonderful, while its sedative effect of relieving the pain and irritability is most gratifying to the patient, to the friends and the doctor. The capillaries and glandular system are opened, and begin functioning throughout the entire system. The skin is bathed in perspiration, and all the glands function, as is seen by the increased action of the kidneys and the excessive secretion of the stomach and the salivary glands.

As soon as the patient's condition will permit, after thus emptying the stomach, an enema, composed of one heaping tablespoonful of table-salt and two quarts of warm water (100°F.) is given, and repeated until the water is returned clear.

The position of the patient in taking this enema is an important one, as the object is to clean out thoroughly the caput coli, because this portion of the alimentary tract, even in good health, is known to develop more bacteria than any other part of the body, and they increase proportionately as the vital forces are weakened. The patient lies on his back, the hips are raised at least eight inches above the shoulders (a hard pillow doubled or a quilt tightly rolled will answer), and the left hip is raised about four or five inches higher than the right, thus allowing water to gravitate to the cecum. Repeated enemas are necessary to cleanse the colon and to keep it clean.

The medicinal treatment begins with the administration of calomel, 1-10 grain; ipecac, 1-10 grain; sodium bicarbonate, 1-2 grain. These are given along with calx

iodata, 1-3 grain, one dose of each every fifteen minutes until eight are given. Then a full dose of saline laxative, after which I give two tablets of calx iodata every two hours, more or less frequently, according to conditions, with 1-3 of a calomel compound tablet and two grains of quinine while the patient is awake. I leave off the quinine altogether after well marked tinnitus appears. The saline laxative is used as required.

The defervescent compound No. 1 tablets, in solution, are used to control the pulse and dilate the capillaries according to indications. Hold the pulse down to from 90 to 100, and the temperature will take care of itself. For the heart and nerves digitalin and cactin are of use, and sometimes small doses of codeine or bryonin for pain in the chest. I give medicine only as conditions demand it, and use whatever alkaloid is best suited to control the condition.

In conclusion, I will say, I do not fear pneumonia when the alimentary tract has been thus cleansed and kept free.

The gist of the treatment thus is:

Control the pulse by defervescent compound No. 1. Blood-cells made hungry and thirsty by withholding food and limiting water until congestion has passed. Minute doses of calomel and calx iodata freely, with sulphocarbolates, which are intestinal antiseptics *par excellence*; they retard fermentation throughout the entire alimentary tract and stimulate the whole glandular system. Thus, with all avenues of the system opened and kept so, and the pulse controlled, pneumonia no longer can claim the fearful mortality of the past. I hope others will try this method.



# An Emergency Tropical Pest-Hospital

*A Personal Experience*

By ROBERT GRAY, M. D., Pichucalco, Chiapas, Mexico

Sleep, Doctor, sleep though many regret thee,  
Who stand round thy cold bier today;  
Soon, soon the fondest shall forget thee,  
And thy name from earth will pass away.  
Yet there is one that still shall pay thee duty  
Of tears for the true and the brave,  
As when first in the bloom of her beauty  
She wept o'er the Doctor's grave.

*—Old War Song.*

**M**OURNFUL requiem to a promising young English brother, new in this fearful field whose life was nobly sacrificed at the inception of an epidemic pestilence is responsible for the subject-matter that suggests the headline of this article.

American brethren cannot even begin to imagine an abandoned plantation house transformed into a pest-hospital in a day—cots constructed from forks and sticks; two-score yellow-fever and putrid-dysentery patients dumped on these rude beds; a league distant from any habitation; but one single medical man to administer to this miserable lot of moaning and groaning humanity; the end of a corn-crib, half full, and ten yards from the hospital, serving as abode and dispensary; ignorant and filthy peons acting as cooks and nurses.

Such was my unenviable predicament during all the month of September—a task an offer of ten thousand dollars would not have tempted me to undertake. But stern duty and humanity called, and it developed upon me to stamp out the epidemic that had started on the big plantation where the young doctor perished, the virulence being so intense that an alarming death-rate quickly resulted.

## The Beginning of Treatment

My mere presence on the ground calmed the panic, and this was nearly half the battle. I began the treatment with a clyster of strongly impregnated solution of epsom salt and lemon juice. I also gave frequently tablespoonful doses of strong lemonade with the white of two eggs stirred in, to allay the

fearful vomiting, supplementing with half-grain doses of zinc sulphocarbolate. When the tendency to vomit was subjugated sufficiently to justify it, I gave a purge of castor oil, 4 parts; olive oil, 2 parts; lemon juice, 1 part, with salt sufficient to season strongly.

Clysters and purges were repeated as needed. Zinc sulphocarbolate and atropine sulphate, pushed to the limit of tolerance, acted in the cases of dysentery wonderfully past belief, while clysters of boric acid and tannic acid, given separately, rendered admirable assistance. Aconitine, veratrine, quinine and other febrifuges were extremely useful. All the strong lemonade the patients would drink was given them.

New patients who continued to come in from day to day for some time were speedily cured; those already nearly dead held out long and tenaciously.

The nourishment was white of eggs suspended in lemonade, olive oil, rice cooked to jelly consistency, and thin corn slapjacks toasted till nearly half carbonized.

While such treatment may not be justified by any recognized medical precept or rules of practice, a victorious outcome as in this case would not readily be attained under any of the recognized methods of medication as now practised by the profession, for be it known that there was but one death out of over one hundred patients treated.

## The Sad Case of a Peon Girl

Amid the motly herd there languished a peon girl, of half-breed mother and a white father, tall, lithe and slender of form, with heavy long black hair and big dark eyes, set as they were in that pallid emaciated face when I first glanced over that blighted and wasting bud of womanhood. She had been dangerously ill with fever and dysentery eleven days, and was out of the rational realm of hope, even for my supersanguine faith in the possibilities of medical art.

However, I resolved to make the supreme effort of my life in coping with the destroying angel.

Not a drop of water would remain for even a moment on the rebellious stomach. Rectal medication and nourishment were impossible. The fever was seething the very marrow of her bones, while the little remaining blood was steadily oozing from her wasted body. I took out my ever reluctantly employed hypodermic mysteries; yet it were idle to recount in detail the manipulations of glonoin, cactin, aconitine, atropine, and other familiar powerful agents.

Eight days later there was no fever nor dysentery, but there lay before us the breathing skeleton of a young girl whom no device of human invention could nourish. A teaspoonful of lemonade once an hour was tolerated, yet given in greater quantity or oftener it would immediately be expelled, the rectum also rejecting any clyster as it was being applied, while spasms instantly supervened at the slightest attempt to force retention. The heart alone responded beautifully to tonic treatment, while other hypodermic applications produced harmful rather than propitious influence.

#### A Sad Ending

Six days and six nights the rythm of the heart was sustained, with a fairly normal pulse, under the purely artificial influence of glonoin, cactin and strychnine arsenate in alternation, till the closing hours of the final night, when glonoin alone sufficed, the others lacking the requisite power.

At three o'clock in the morning the girl asked, "Doctor, shall I ever see the blessed sun again?" and I replied, "Yes, little one, for the night is beautifully clear."

A gossamer film of mist mantled the earth and it became transfused with the radiance of rainbow tints when the round dazzling splendor of the sun of the torrid clime bodied forth above the brilliant horizon.

"*Que linda vista!*"—"What a lovely sight!"—the poor dying girl feebly exclaimed, not heeding me nor ought besides. Then those lips of ashen hue silently moved as if still speaking, while the fading eyes closed

as though in gentle sleep. The pulse held a weaker yet steady stroke and the respirations were regular with no semblance of agony nor other signs of the presence of Death; the extremities were not cold.

The sun gleamed in through open spaces between the reeds of the thatched wall, illuminating her neck, her arms, her chest, making the flesh appear almost transparent, thus demonstrating to the eye of the physician that the heart was pumping merely a watery substitute for the nectar of life, that was finishing the last drop of blood. Abruptly the heart ceased beating without the slightest token of warning that it would no longer render bootless labor, and the ever-faithful mother and I alone knew there was death in the house. Then men came to carry away the shrunken form to a coffinless grave. I would fain have bought for her a neat shroud and casket, but none such could be had nearer than sixty miles distant.

And thus a fair young life, still innocent and full of hope, found refuge where

Silence guards with solemn round  
The bivouac of the dead

from a destiny of becoming at best the wife of a vicious semibarbarous peon or the neglected mistress of some loveless voluptuary.

#### A Lesson of Priceless Import

There remains from her a lesson to me of priceless import: knowledge of sustaining scientifically the heart for a long period even after there is no longer the natural life-force to retard dissolution. She was in the hospital fourteen days.

There was brought to us another young girl, a cousin of the first, who apparently was equally hopeless, and she lingered for twelve days before every vestige of disease was removed. But this patient never vomited after the third day, while clysters stayed by her for thirty minutes or longer without causing the least inconvenience. Still, she never displayed any disposition to rally, but rather declined to a semicomatose state of speechless unconsciousness such as I never had witnessed in a fated victim of disease before. However, when the fever recurred



no more and the hemorrhages were staunched I noted a marked relish for chicken broth and lemonade, white of eggs and lemonades, and no repugnance for olive oil. And thus, aided by artificial cardiac support, she recuperated in ten days to a condition of auspicious convalescence that led to a rapid and uneventful recovery, such as would have been the case of the dead girl had there been any possibility of nourishing her body even to a fraction of that to which the heart's action was stimulated.

#### Some Helpful Remedies

Copper arsenite, a favorite and sure substance in the prevailing gastric fluxions and intestinal disorders, I employed twice. It was vomited in each case after the tenth fractional dose. Powdered ipecac, one of the best standard remedies in your materia medica, in fractional dosage for dysentery, was vomited at the second administration, while zinc sulphocarbolate was never once vomited, save by the girl who died, not being retained once by her. Atropine sulphate was never vomited, and it was the prime factor that staunched the hemorrhage in many seemingly hopeless cases, the zinc lending astringent aid of no mean degree and rendering vital antiseptic service. But lemons were helpful in an incalculable measure, both as an antiseptic and detergent element in clysters, and antiseptic and refreshing by mouth, the consuming thirst of these gastric and pernicious fevers being a fearful complication that nothing soothes so promptly and lastingly as lemonade.

In all my long and varied tropical experience I never before met so many cases of dysentery at one time complicated with the element of yellow-fever; and there was no case of fever without dysenteric indications. Almost every case began with fever, sometimes three days before dysentery appeared. As a matter of course I know nothing of those who died before I arrived, more than that they had virulent dysentery. After I was on the ground the new cases of yellow-

fever were of mild form, not necessarily fatal, only one case of black-vomit developing which recovered, but little medicine in addition to white of eggs and lemonade being employed to check the vomit. Aconitine and gelseminine were used successfully as febrifuges afterward.

#### Treatment in Advanced Cases

I had good result in old cases with intestinal ulceration developed to a dangerous degree, using clysters of emulsion of olive oil, lemon juice, oil of turpentine and yolk of eggs.

This is usually a wet country, rarely a fortnight passing without rain; but for four consecutive years there has been so very little rain (four months several times without a shower) that the streams and swamps dried up, this resulting in disease-epidemics previously seldom known here. Now it has been raining again almost daily for more than a month, which has terminated at last in dysentery and pernicious fever, and this has left an epidemic of influenza and what follows in their wake, so that the poor people and overtasked doctors still have a tedious time of it.

#### Mexican Investments

It is a pity and a shame that disease and pestiferous insects are so distressingly prevalent in this earthly paradise, so that the hundreds of doctors who have written me about investments might buy cheap land, the richest and most productive anywhere, that will some time have ten or twenty times its present value. Still my advice would be not to buy nor to dream of living here.

*Buy no stock in anything down here, where there are enterprises whose stock pays the highest dividends paid anywhere, not a share of which is for sale. Stock offered in the United States will never pay anything, and all money thus invested will be lost.*

Let the above be my final answer, as I shall reply to no more subjects referring to such subjects.

# Conditions in a Mexican Hospital

*A Fight with Dirt and Ignorance*

By **GEORGE B LAKE, M. D., Wolcottville, Indiana**

Formerly Assistant Surgeon, Mexican Central Railroad

**T**HE purpose of the present article is to give to the reader some idea of the conditions under which a medical man labors in our sister republic to the south.

Before going to Mexico I had, in common, I think, with most people who have never been there, the idea that while the people spoke a different language and were dark-skinned the customs and institutions were about the same as those we are accustomed to. For this reason it was a surprise to me on crossing the dry channel of the Rio Grande to find that I had not only entered another country but also another century.

I will not here attempt to detail in how many respects Mexican peons are two or three hundred years behind us in industrial progress. Suffice it to say that illiteracy is the rule rather than the exception, that marital ties do not bind very firmly, and that dirt is omnipresent.

A friend of mine once said that his first impression on visiting a certain foreign country was the cleanliness of the cities, in such marked contrast with those of this country; and he wondered what they did with all the filth which, with us, accumulates in the gutter. He said that after being present in a closed hall where a large number of people were assembled this question was answered—they carried it around on their persons.

Mexican peons do worse than that. They carry around all the filth that can possibly adhere to their skins and clothes, and still leave plenty in the streets. They all bathe and put on clean clothes on St. John the Baptist's day each year, and many do not bathe at any other time. These prefatory remarks are necessary to an understanding of what is to follow.

The patient was serving a life-sentence for murder in one of the Mexican prisons, a foul hole reeking with filth and vermin.

The floor was his bed, his table, his chair. His food was of such a character as to shock the sensibilities of an American. In this condition he lay sick for two weeks upon the floor, eating the same food as the other prisoners, when he could eat at all. His family then asked me to call upon him, and I found the following conditions:

The man was much emaciated, his complexion was sallow and muddy, tongue heavily furred, temperature 103.5°F., pulse 120. In the left hypochondrium there was a tumor as large as one-half of an infant's head; this tumor was hot and red and it fluctuated. I diagnosed subphrenic abscess and advised immediate operation. Feeling certain that an operation in the prison would be sure to result fatally, I went to the proper authorities for permission to remove the patient to the city hospital, which was granted.

The hospital to which I removed him was the only one in the city and was a very picturesque structure, built about the four sides of a court filled with date, banana, orange and lemon trees and all manner of tropical flora. This garden was divided by a wall, on one side of which were the rooms for the men and on the other those for the women. The long side of the men's court was occupied by the ward, the two short sides (up to the wall) by private rooms.

The floors of all the rooms were paved with rather soft red brick, the walls were of *adobe*, or mud bricks, plastered over, while the ceilings were formed by the under side of the roof, which consisted of poles thatched with rough boards, brush and plaster. The beds were of iron, but in place of springs they were decked over with boards. Some had mattresses and some had none, the latter being preferable, as the mattresses were swarming with vermin. There was *not a sterilizer* in the building.

The manager of the hospital was the same individual acting as the prison physician, and being incensed at my taking the case out of his hands, he would give me no assistance, nor do I believe he would have permitted me to come into the hospital at all had I not held an official permit. For assistants, then, I had to rely on the two Mexican male nurses. These I coached thoroughly that evening in their duties of the morrow. One of them was a fairly competent anesthetist, which fact relieved me of much anxiety.

The family was too poor to pay for a private room, but I insisted on having the use of one in which to do the operation, and that night I had the nurses scrub it all over thoroughly; they were also ordered to take a bath and put on clean clothes. I took my own sterilizer to the hospital, and also a large piece of oilcloth to put over the wooden operating table. The patient was bathed and had his bowels thoroughly evacuated during the night. The bed on which he was to lie had been thoroughly scrubbed with 1:1000 bichloride solution. The family furnished several freshly washed quilts to serve as a mattress; also freshly washed and ironed bedclothes.

We put the man on the table about 10 in the morning and induced anesthesia with chloroform. I opened the abscess by an incision about four inches long, parallel with and about an inch below the costal margin, nearly two quarts of pus being evacuated. I washed out the cavity thoroughly, put in drainage, closed the wound, and covered it with sterilized dressings. The man recovered well from the chloroform and said he felt much better. I gave the nurse and the man's family strict orders that his diet should be liquid until further orders, and that he was to keep *perfectly quiet*.

#### The Peculiar "After-Care"

On the *third day* after the operation, at about noon, I went in to see the patient and found him squatting on his haunches in the middle of the bed, eating *tortillas* and beef stew; and he then told me, when I questioned him, that instead of using a bed-

pan, which I had provided for the purpose, he had been getting up on a vessel from the first. This explained what I had not been able to understand before, viz., why the wound was not looking as well as it should. I repeated my orders as to his care.

On the fifth day I was called a long way out of town, and I carefully instructed the nurse how the wound should be dressed.

On examining the wound next day I found that instead of using the sterilized dressings which I had provided, the nurse had used the unsterilized dressings furnished by the hospital.

As a result the wound looked red and angry and pus was oozing from stitchholes.

In spite of all I could do in the way of antiseptic irrigating, etc., gangrene appeared at the edges of the wound the next day, spread rapidly and on the fourth day following the patient died, eleven days after the operation.

I have recited this case, not to present a surgical curiosity, but as a typical example of the state of surgical knowledge and practice in the towns and smaller cities of the Republic of Mexico at the present time. This was not an exception but the usual rule. Surgical patients are given *tortillas* [corn-meal fritters], *frijoles* [beans], stewed meat, and in fact anything which the other patients get as soon as they recover from the anesthetic enough to eat at all.

An American physician who had been in Mexico for a number of years told me, seriously, that it was impossible to operate *in that altitude* without having pus. This shows that even foreigners become infected with the lax and careless spirit which prevails in that country.

The family of the patient mentioned in this article did not seem to think it strange that the things I have spoken of were done, and when the man died they simply said, "*Muy bien*, it is the will of God."

The fact of the matter is that we do not appreciate the blessings of civilization until we have lived for some time in a semi-civilized country; and of all who profit by the enlightenment of their fellow men the physician is one of the foremost.

# Specific Treatment in Gastric Diseases

*Valuable Helps for the Treatment of Stomach Diseases*

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

THE writer has elsewhere (*Therapeutic Gazette*) made a plea for the return to the old conception of specific medication, with due allowance for inevitable failure, and pointed out the need of attending to general conditions as well as special symptoms, and the fact that we cannot have specific therapeutics in the sense of one drug for one disease-name until our nomenclature is revised so as to represent definite nosologic units.

With these qualifications, specific medication is by no means a superstition of the past nor an aspiration of the future, but, to some degree, an accomplished fact. For example, we may mention quinine for malaria, mercury for syphilis, diphtheria antitoxin for diphtheria, vaccination as a specific prophylactic of variola, etc., and may reasonably expect further additions to our armamentarium both along the lines of biologic products and of drugs, vibratory forces, and other agencies.

## No Specific Treatment for Disease-Names

It is obvious that as long as we speak of a patient as having dyspepsia, constipation, diarrhea, and so on, or of being "liver-grown," there can be no realization of the idea of specific treatment, nor, indeed, of any treatment whatever that is of use except by a lucky chance. Neither does employment of more technical terms aid us, unless they are used accurately. Whether the term "specific" medication or therapeutics is considered allowable or not, we shall accomplish nothing of definite value to the patient till we realize that diagnosis does not mean giving a name to a condition merely to placate the patient or improve the appearance of our records, but that diagnosis is, in the most literal sense of the Greek word, a *thorough knowing*.

Another important point is to realize the paradox that, on the whole, the functional

condition is not only not more amenable to treatment than the organic state, but really more serious. As to the latter paradox, we need only allude to the heart as an illustration. The worst possible heart, from the standpoint of the museum, with leaky and obstructed valves, degenerated myocardium, calcified coronary arteries and adherent pericardium, enlarged and dilated but still beating, is a good deal better than a heart without any discoverable lesion that stops from an emotional cause or a physical strain.

## No Such Thing As a Functional-Condition

Again, we are getting around to the belief that there is no such thing as a functional condition, aside from a temporary disturbance of innervation, but that there is always some lesion, and very often one perfectly demonstrable with present histologic methods. Thus when we speak of functional disorders, it is with the proviso that the organic condition is undiscoverable simply because we can not expect to be able to inspect the organ and that we are laying stress on what the organ does or fails to do rather than on what it might look like.

If we use the term neurosis as a substitute for functional condition, we must eliminate the thought of a neurotic state of mind. Of course, a neurotic individual may have some form of dyspepsia and, if so, the latter is likely to produce more symptomatic disturbance than when it occurs in a person of normal mentality, and we may even concede that the condition itself is worse; but, generally speaking, a gastric neurosis has no connection with a neurotic state of mind. The term nervous dyspepsia is also liable to place the practitioner on the wrong track, or, rather, the fact that he uses such a vague diagnostic term shows that he is already on the wrong track.

The writer has, at present, a patient said to suffer from nervous dyspepsia. Physical

and chemical investigation show that the man has no digestive disturbance at all. Another such patient committed suicide within a few days after examination of the abdomen and of the stomach-contents showed that there was no gastric disturbance. To put the matter plainly, there is a distinct type of so-called nervous dyspeptics who are not dyspeptic at all. Some of them have other troubles, for example movable kidney, chronic colitis, etc., while others are purely nervous, that is to say, hysteric. On the other hand, we find many persons with a true dyspepsia of one kind or another and who are nervous simply because their business is interfered with or because they are apprehensive of the future, or, still more directly, on account of auto-intoxication.

#### Different Kinds of Dyspepsia

There is a very pretty classification of dyspepsia into motor, secretory and sensory disturbances, each subdivided into exaltations, depressions and perversions of the normal function. For practical purposes, it is well to eliminate sensory conditions, although there may be neuralgia or even neuritis of the gastric nerves. Nine times out of ten, however, a gastralgia is due to chemic irritation or to motor disturbance, or marks some organic condition, such as ulcer; in other words, the pain is not due to an abnormal sensory function. On the contrary, there would be something the matter with the gastric nerves if pain were not felt.

Again, it must be remembered that a so-called gastralgia or heartburn, may be due to a cause extrinsic to the stomach, as a gallstone, adhesion, inflamed appendix, pancreatic lesion, etc. Many of the most typical cases of "hyperchlorhydria," judging from the symptoms, are really cases of gallstones. Sometimes, with gallstones, there is actually a reflex hyperchlorhydria, but the cases with depressed secretory function appear just the same.

Right here we have a very good illustration of practically specific symptomatic medication. While all sorts of anodynes may be employed, gastric pain due solely to super-

acidity requires nothing more than alkaline treatment, preferably by a fixed alkali such as magnesium oxide or hydroxide, and, in hyperchlorhydria, in which the acid products are practically lacking in toxic properties, dilution by taking a drink of cold water may not only ease the discomfort but temporarily check further secretion.

#### The Treatment of Gastric Pain

Gastralgia due to lesions of the stomach itself, mainly some form of ulcer, is usually checked by mild local anesthetics, such as orthoform and anæsthesin. Cocaine is not often necessary; indeed, Meltzer has shown it to have some general action. Speaking from personal observation alone, the writer would be inclined to say that orthoform and anæsthesin would also relieve gastralgia due to hyperacidity and without lesion of the gastric wall, but some hold that these agents do not act unless the mucosa is more or less denuded. Obviously, it is exceedingly difficult to draw the line between simple hyperchlorhydria and certain types of ulcer with hyperchlorhydria or even normal or moderately deficient acidity (even small amounts of acid producing pain if the mucosa is defective) and hence it is correspondingly difficult to be certain as to the limitation of action of these drugs.

Bearing in mind the fairly definite therapeutic indications, they may, to a certain extent, be worked backward as a means of diagnosis. For instance, a gastric pain, not relieved by alkalis and the mild local anesthetics mentioned, not accompanied by shifting neuralgic pains in other parts, is pretty certainly due to some trouble within the abdomen and outside the stomach—often to gallstones or cholecystitis without calculi.

#### Some Secretory Abnormalities

Turning to secretory abnormalities, the subject of excess of secretion has already been introduced. For practical purposes there is no such thing as an excess of ferments and, indeed, no present possibility of demonstrating it. Under the abominable term of "gastrosuccorrea" there has been described an excess of secretion as a whole,



not necessarily, though perhaps usually, including an excess of hydrochloric acid. This condition is now, however, almost universally regarded as symptomatic of ulcer. Hence an excess of secretion of the stomach really means hyperchlorhydria.

Few diseases are so definite in their indications and so positively controllable as this succorhea. *But*, as the condition is probably not a neurosis at all but due to hyperplasia of the oxyntic cells, it is extremely prone to recur, and we can not promise a cure except in the sense that any such lesion—that of exophthalmic goiter for instance—tends gradually to wear itself out and to be followed by an atrophy. Still, it is possible that many cases are neuroses. At any rate, a surprising number, after brief treatment, remain subjectively well with reasonable care as to diet and do not even seem to develop the expected reactionary hypo- or achlorhydria. Alkalis, especially magnesium oxide or hydroxide and calcium hydroxide, are specific in this condition so far as the state of the stomach contents is concerned, and we may even, by titration and estimation of the bulk of the latter, measure the dose of alkali with approximate accuracy.

In a negative sense, we have a more radical specific treatment. Obviously the diet should be free from stimulant ingesta and should include considerable carbohydrates and fat because these substances do not require and therefore discourage the secretion of hydrochloric acid. This principle is generally credited to Pawlow, and justly, so far as scientific demonstration is concerned, but it was clearly appreciated on theoretic grounds and supported by clinical experience, at least ten years before Pawlow was known.

But there is a more definite specific, though negative, treatment which the writer would urge for more general practical acceptance. We may doubt the statement that bricks cannot be made without straw but they certainly cannot be made without clay. Now, however numerous or active the oxyntic cells may be, they cannot secrete hydrochloric acid unless chlorine is available, and if we starve the body so far as

chlorides are concerned, hyperchlorhydria becomes impossible. Practically, it is usually necessary only to insist that salt as such shall not be used in the kitchen or dining room to season the patient's food.

#### Hyperchlorhydria—Excessive Hydrochloric Acid

While undoubtedly many persons have a secretion of hydrochloric acid beyond the normal average for human beings, approaching or exceeding that of the dog, without especial symptoms, strictly pathologic cases of hyperchlorhydria are very seldom construed otherwise by a reasonably careful observer, depending on the history and symptoms.

*But*, there is an entirely false general opinion as to the frequency of hyperchlorhydria. Without in any sense being rare, it is much less frequent than the opposite condition in any average series of gastric cases. Cholecystitis, with or without calculi, chronic appendix inflammations, neuralgia, and ordinary sour stomach due to deficient hydrochloric acid with resulting organic sourness, are very often misinterpreted as hyperchlorhydria. Even when the stomach-contents are analyzed many men form a mistaken view of the nature of the case, first by placing the limit of normal gastric hydrochloric acidity too low, secondly by reading their end-point at the complete decoloration of dimethylamidoazobenzol, instead of at the change from cherry to orange, which occurs 10 to 15 degrees lower. Normal gastric juice has an acidity of about 50 degrees. It forms about half of the stomach-contents, so that the normal hydrochloric acidity after a test-meal is about 25, though it may be as low as 15 degrees without justifying the diagnosis of hyperchlorhydria. Now, a man regularly exaggerating his reading by 10 to 15 degrees will interpret practically every case of normal secretion as a marked hyperchlorhydria. This has its advantages: he will be able to report a large number of unusual cases; his patients will require longer treatment and will furnish interesting paradoxical combinations of hyperchlorhydria with fermentation, as against

the man who makes his diagnoses correctly and promptly relieves the symptoms.

Unless there is isochymia, or unless food already in a state of fermentation is swallowed, or unless the hyperchlorhydria is recent or occasional, it can not be associated with any great amount of fermentation and gas production. However, the patient will usually complain of gas, because there is always some air swallowed and a little gas formed in the stomach and the irritation of the hydrochloric acid will give the impression that there is a great deal of gas. . .

#### The Treatment of Scanty Acid Secretion

The treatment of hypo- or achlorhydria is specific in the direct sense, consisting in the administration of hydrochloric acid at intervals after meals, in doses corresponding to the deficit and the bulk of stomach contents, as well as the capacity for different foods to combine with the acid. The detailed consideration would occupy too much space. It should be remembered, however, that the lack of hydrochloric acid is sometimes conservative, as in gastritis and perhaps in cancer and old age; also, on the other hand, that the administration of hydrochloric acid does not of itself produce a permanent cure and that many cases, owing to atrophy of the tubules or some underlying depressing cause, as tuberculosis, can never recuperate the acid-producing power.

Care in diet, the use of sapid but easily digested foods, and strychnine comprise the simpler means of stimulating secretory function. An abundance of salt may be considered specific, but excessive amounts diminish gastric acidity immediately, either by producing osmosis to cause dilution of the chyme or by inhibiting the oxyntic cells directly, or by both means. Furthermore, while the stomach cannot form hydrochloric acid without chlorides, it is by no means certain that it can do so with them.

#### When the Ferments Are Deficient

Ferment failure is frequently noted in achlorhydric cases, rarely to an appreciable degree if any free hydrochloric acid is found, and never, so far as the writer knows, if

hydrochloric acid is normal or excessive. For practical purposes, pepsin and rennin may be considered as one ferment acting in different ways, even if this is not literally the case. Occasionally, gastric juice or filtrate after a test-meal will dissolve albumin and not coagulate milk, or *vice versa*. Such cases are so rare, however, that it is a question whether there has not been some fault in the technic. At any rate, the ferments have not been isolated in a pure state and commercial pepsin will coagulate milk, while that sold for rennin will dissolve albumin.

When gastric juice, even after adding hydrochloric acid to the normal strength of about 25 to 30 degrees, does not dissolve albumin after several hours, we may be certain that pepsin is not present, even in the stage of a proenzyme, to an appreciable amount. In such cases, if the stomach is washed with hydrochloric acid, it will sometimes yield pepsin; if not, we may conclude that there is a failure of ferment formation as well as that of hydrochloric acid. Here we might apparently conclude that pepsin would be a specific. Unfortunately, the stomach that can not secrete ferments is usually in too bad a state to perform its function properly even if they are supplied.

If in these cases a digestive ferment is used at all, it is usually better to employ papain or one of its vegetable congeners, or to administer predigested food. At any rate, it should be borne in mind that tons of pepsin are used where only grains are needed; that cases with genuine lack of pepsin are encountered once a month or once or twice a year in large practices limited to the digestive organs, instead of daily or weekly in general practice, and that, nine times out of ten, pepsin-prescriptions are not only not specific but absolutely irrational.

With reference to motor disturbances, it is impossible to speak of specific treatment, except that strychnine is fairly reliable to stimulate motor power and, indeed, may well supplant all of the ordinary bitters. However, motor and secretory function usually rise or fall together. It should be remembered that rapid emptying of the stomach

often occurs in cases in which the motor as well as the secretory power is weak and that retention of food is usually due rather to pyloric obstruction or ptosis than to motor

weakness, and that in retentive cases there is often supermotility though still not sufficient force to overcome the mechanic obstacle, at or just beyond the pylorus.

## Proctitis and Periproctitis: A Study of Their Relations to Common Rectal Diseases\*

*With the Description of a New and Successful  
Method of Treatment*

By J. D. ALBRIGHT, M. D., Philadelphia, Pennsylvania

FROM among the several subjects which suggested themselves to me when I received the invitation to appear before this body today I have selected one which has impressed me as being the most interesting, the most important, and in many respects the most intricate pathologic process found in the anorectal region. Interesting, because a careful study of inflammatory action in and about the rectum can not fail to fascinate the earnest student; important, because of its relation to many supposed diseases of the region and its effect on the person attacked by it; intricate, because no one has ever dared to estimate the extent of its action, nor measure the realm throughout which its influence is exerted.

Proctitis, which in all chronic cases includes periproctitis, deserves first place among anorectal diseases, not only because of its prevalence and serious nature, but because it is directly responsible for the production of many abnormal conditions which have for ages been looked upon as distinct diseases. This is a statement that anyone, even though but slightly conversant with proctologic literature, will recognize as being exactly contrary to the views of practically all writers on the subject, yet I predict that before we finish the discussion which will follow the reading of this paper, the truth of it will have been demonstrated.

In regard to the cause of proctitis some confusion exists. This is due to the adoption

of the term "proctitis" for the chronic condition as well as for the acute condition, for strange as it may seem, acute and chronic proctitis are not related to each other. Theoretically, all subacute or chronic conditions must have had an acute stage, and this is doubtless as true as that the adult must have been a child, but the point to remember is that the disease commonly known as acute proctitis, that condition of rectal inflammation which is usually due to external causes is not the precursor of what we term chronic proctitis, the proctitis which belongs to proctology. Acute proctitis belongs to general medicine.

### The First Stage

The first stage of chronic proctitis is never well marked, for although hundreds of patients who presented well-marked evidences of chronic inflammatory action in and about the rectum have been carefully questioned, scarcely any have given any history of marked acute rectal inflammation, yet we all know that the victim of a well-marked attack of this painful affection is not very likely to forget it. When, occasionally, one is consulted in regard to what at first seems to be acute proctitis, a careful examination of the entire rectal mucous surface should be made, and if this is done, tissue changes and deviations from the normal will be noted which must of necessity have taken years to produce. This indicates that what might be considered acute proctitis is in fact an acute manifestation of chronic proc-

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titis, brought about by local disturbances of various sorts. If, for example, the term "rectitis" were adopted as descriptive of the condition under consideration, less confusion would result. One might then say that chronic rectitis is preceded by acute rectitis, but not that chronic rectitis is preceded by acute proctitis. The diseases are not identical, although similar to each other, and it is unfortunate that there is not a distinctive term given to each. This will doubtless come later on, for until recently the essential differences between them have not been recognized, although one of the accepted authorities seems to incline toward treating acute and chronic proctitis as two separate diseases, in his recent writings.

With the causes of acute proctitis we are today not concerned, for it is to the chronic condition that your attention is to be directed.

#### **Etiology of Chronic Proctitis**

Reflecting upon the prevalence of chronic proctitis, or proctitis, as I shall hereafter term it, it becomes evident that its cause must be looked for among customs or conditions which are practically universal, yet I am not prepared to give any absolute information in this respect. It has been held that it is due to infection during infancy, when wet or soiled diapers are not as promptly removed as they should be, which theory is strengthened by the fact that proctitis is not infrequently found in comparatively young children. This is further supported by the theory of orificial surgeons, who claim that "irritation of an organ begins at its mouth." Other causes may be the use of improper food, digestive disorders, the use of purgatives or other means for the relief of constipation, or any other influence which causes irritation or injury to the rectal mucous membrane. We do not, however, wish to speculate upon theories at this time, for we are confronted by a condition that is real; not a theory that may or may not be correct.

Nature, apparently anticipating the abuse to which the rectum would be subjected, wisely supplied it but scantily with sensory nerves and not overabundantly with blood-

vessels, except at its lower extremity, where injury is more liable to occur, and rapid repair essential to the comfort of the individual. One can not imagine the misery which would be caused were the rectum as liberally endowed with nerves of sensation as certain other portions of our bodies are. Because of this, considerable variation from normal conditions may exist here without much discomfort.

The structure of the rectum and surrounding parts is not such as to offer much resistance to the insidious progress of inflammation, and as a result, it gradually extends its area without any notable evidence of its presence, and lays the foundation for a horde of symptoms that will later appear and demand attention.

Proctitis, in this developing stage, may be present for a long time before its victim becomes aware of its presence, although the occasional recurrences of some acute or sub-acute manifestation serve as a reminder that all is not well. In the young, when poorly nourished, anemic and slow of development, the progress of the disease is more rapid, and I have seen, in a child of seven, tissue changes which appeared similar to those seen in adults in whom it has been developing for twenty years. In these cases the lack of vigor and development is without doubt due to the rectal condition.

The progress of inflammation in and about the rectum is similar to that anywhere: irritation, congestion, engorgement, stagnation, death and decay of tissue. If reparative forces are active, there is at the same time fibrous-tissue formation going on, with thickening of the mucous membrane, lessening the caliber of the bowel, functional impairment because of circulatory interference, constipation, more irritation and congestion, and so on *ad infinitum*.

#### **The First Symptom—Excessive Moisture**

Mucous membrane secretes mucus when normal; more when irritated, hence the first symptom of proctitis is an abnormally moist rectum. Unfortunately, this stage has usually passed before we are consulted by those in whom it occurs. Were the inflammation

confined to the mucous surface, there would be comparatively little difficulty experienced in applying the proper remedies, but such is not the case. In its progress it involves not only the areolar coat and muscular investment of the rectum, but it passes through them into the perirectal tissues, and from them, as well as from the mucous membrane, the exudate continues. Coming from the deeper structures this exudate assumes a mucoserous character, and instead of being found in the rectum, it invades the cellular spaces surrounding it and the tissues about the anus.

The inflammatory products exuding from the mucous membrane, or at least those from the epithelial surface, accumulate within the rectum and are carried out during the act of defecation, but those coming from the deeper structures are not thus removed from the system. These also accumulate wherever an unoccupied space may be found, and from thence travel in the direction of least resistance, forming in some instances sacs or pouches, and in others they burrow in one or more directions, bringing about the formation of channels, or sinuses, of various lengths.

An exudate which arises within the mucous membrane, that is, within the epithelium or corium, or between these layers, is imprisoned for a time, but as the quantity increases the part becomes puffy and soon forms a sac or pouch, which is readily recognized during examination by means of a speculum. When of slightly deeper origin, or when thickening or toughening of the mucous membrane has taken place, furnishing too much resistance to the exudate, so that sacs are not formed, it will burrow in the direction of least resistance and form the channels already referred to. The most common course, under these circumstances, is toward the connective tissue between the mucous and muscular coats of the rectum, thence downward toward the anus.

#### How Mucus-Reservoirs Are Formed

As this stream of mucus or seromucus reaches the region of the anal opening cer-

tain obstructions will be encountered. The parts here are more firm and the frequent contractions of the sphincter-muscle interfere to some extent with its onward course. This impediment, however, does not permanently restrain its progress, but, changing its course, it burrows downward and under the skin about the anus, buttocks, perineum, scrotum, vulva, or into the space between the anus and coccyx.

The space between the rectum and coccyx is a favorite spot for the establishment of mucus-reservoirs, as the tissues therein are peculiarly adapted for its invasion. It is not unusual to find a channel running from some point near the anus, either in front or behind the rectum, directly upward for a distance of five to seven inches, nor to find them under the skin, running directly backward over the coccyx for seven to ten inches, forward along the perineal raphé, around the scrotum or labia, or down the internal aspect of the thigh.

The pouches or sacs which form in the interior of the bowel are most numerous in that portion known as the pile-bearing area, and their presence here is explained by the interference of the sphincters, chiefly the external, in constricting the canal. It is this sacculated condition of these parts that makes hemorrhoids possible.

The effect of the exudate that invades the perianal and subtegumentary areas already referred to is to render the tegument about the anus puffy and hypertrophied, giving evidence of more or less distention. The skin itself may become invaded, and this usually occurs in well-advanced cases. There is then a slow but persistent oozing of the exudate through the skin to the surface, producing the annoying moisture of the parts which by some writers is said to be perspiration.

#### Primary Symptoms Overlooked

With the primary symptoms of proctitis the proctologist has little to do. The disease may, and usually does, exist for years before a burning sensation will attract attention, and it is usually not until the secondary symptoms are developed that the specialist



is consulted. It is right here that the wide-awake general practitioner can step in and cure the patient, earning for himself a good fee and the gratitude of his patron.

During the developing stage of proctitis functional and structural impairment is going on continually. Nerve irritation and spasmodic contraction of the muscles gradually cause constriction of the rectum and anus, lessening their calibers and contributing to blood stagnation, dilation, thinning and weakening of the walls of the blood-vessels, pouched mucous membrane, and, in addition, a constant cell proliferation, which results in the inevitable formation of adventitious tissue.

About the anus and buttocks patients will discover hot or sore spots, indicating the location of channels or small reservoirs near the surface, which serve as guides for beginning treatment.

On inspection, in the early stages, the mucous membrane appears bright-red, but later becomes pale and flabby or edematous. If atrophic changes have taken place, there is that peculiar glistening appearance characteristic of the condition, and instead of being moist, as usual, it is dry to the touch. Except in the latter stages, after the inflammation has become localized in the perirectal tissues, or in atrophy, more or less mucus is always found in the rectum. The anal orifice is likely to be contracted, the sphincter-muscle irritable and tight. Constipation is the rule, with an occasional attack of diarrhea in some cases. During acute exacerbations the usual symptoms of inflammation are observed: pain, heat, swelling, desire for stool, tenesmus, and perhaps frequent desire for urination.

#### Secondary Symptoms

The three principal secondary symptoms of proctitis are pruritus ani, hemorrhoids, and anal fissure. Others might be mentioned as being due to the same cause in a large percentage of cases, such as certain types of fistula, ulceration, etc., but we shall not have time to consider them all.

In thus bodily lifting pruritus ani, hemorrhoids and fissure from the kingdom of dis-

eases to the province of symptoms, I realize that history and tradition are violated and the banner of orthodoxy trailed in the dust, but if by so doing I am crushing truth to earth, those who will not agree with me may console themselves that it will rise again. However, when one can match reason against results and find the former upheld and supported by the latter, an argument is advanced that admits of no rebuttal.

Inasmuch as proctitis has never received the attention its importance deserves, it is not strange that the etiology of these prevalent conditions has escaped the notice of those to whom we have been taught to look for light and advancement, and I beg of you to study this disease carefully and without prejudice. Truth is said to be stranger than fiction, and after you have mastered the intricacies it presents you will admit that the truth as you shall then see it will indeed be stranger than the fiction we have always been taught to believe in regard to these interesting conditions.

#### The Treatment of Proctitis

The successful treatment of proctitis is not difficult, but it requires perseverance and cooperation between physician and patient. It may be divided into home and office treatment.

The home treatment consists in rectal irrigation and the irrigation of the channels and the cleansing of the wound made during the office treatment.

By rectal irrigation I do not mean taking an enema or flushing the colon, but a process of applying hot water or medicated solutions to the interior of the rectum. For this purpose a special hard rubber irrigator, having an outlet four times as large as the inlet, is required, thereby facilitating the escape of the hot solution with a gush, instead of trickling out through a small tube. The instrument is introduced into the bowel at the beginning of the treatment and is to be left there until the end, as, if removed while the hot solution is in the rectum, its escape would be liable to cause pain, for it must be remembered that the interior of the rectum will bear water much hotter than can be

endured on the external parts. After final irrigation the instrument is slowly withdrawn, after the rectum has been emptied.

For irrigation one may use hot water of 110 to 120 degrees, or one- or two-percent solutions of borax, sodium salicylate, potassium chlorate, magnesium sulphate or boric acid. If there is ulceration, antiseptics may be added, such as phenol, ichthyol, or hydrastis. Certain oils, as of cedar, cajuput or spruce, may also be used, mixing them with the water or solution by means of the addition of magnesium carbonate. While they will not really mix with the water, these oils will be so well subdivided that they will find their way into the rectum and act as stimulants, deodorants and antiseptics.

The inlet-tube of the irrigator is attached to the tubing of an ordinary fountain-syringe, supplied with a clip for controlling the flow, and to the outlet a short piece of tubing is attached, also provided with a clip.

#### How to Irrigate the Rectum

The irrigating solution having been placed into the bag of the syringe, the patient should be seated upon a commode or toilet and the irrigator introduced after proper lubrication. With the outlet tube open, the supply tube is opened, and as soon as the solution begins to flow out of the outlet tube the latter is closed. When a moderate distention of the rectum has been effected, as indicated by the desire to evacuate its contents, the inlet tube is also closed and the solution retained for five or eight minutes, after which the outlet is opened and the solution allowed to escape. This process is repeated as soon as the rectum is empty, and continued for at least half an hour, longer if time permits. As the water in the reservoir cools, more hot water must be added; or, if an alkaline or antiseptic solution is used, it can be kept hot and added as needed. This process is to be gone through at least once daily, morning and evening if possible. Only a moderate distention is required, six or eight ounces being quite sufficient, as further pressure would send the liquid into the sigmoid and disturb its contents. When properly done thorough rectal irrigation can be accom-

plished without material discharge of fecal matter.

Hot water or hot medicated solutions are essential to the successful treatment of this condition, the heat being probably of more value than the medication. Nothing excels hot water for rectal pain, either by irrigation or applied externally by means of the sitz-bath.

While this is being attended to by the patient at home, the office treatment is given by the physician, and this brings us to the most interesting as well as the most important portion of our battle with this, in many respects, remarkable disease.

#### The Burrowing Sinuses

In order to cure the disease and obliterate its symptoms so that they will not recur, the sinuses or channels formed by the burrowing of the imprisoned exudate must be opened, evacuated, irrigated and obliterated.

Before going further it will probably be best to state that apart from the small percentage of cases of pruritus ani which are caused by parasites, worms or eczema, all of them are due to the existence of subtegumentary sinuses throughout and sometimes beyond the itching area, and it is for the relief of this symptom that you will be most frequently consulted, when proctitis and periproctitis exist. Other symptoms, although annoying and at times painful, are practically ignored when pruritus begins an active campaign. Thus it becomes evident that the proper treatment of pruritus ani is practically the treatment for proctitis, or more correctly, periproctitis, and while some cases of the latter do not develop well-marked itching, all cases of true pruritus ani coexist with channel formation. The itching caused by other causes is not true pruritus ani, and need not be mentioned further.

The office treatment of periproctitis is operative, but can and should be done under local or regional anesthesia; in fact, it is due to the great advances made in the development of a suitable technic for the induction of local anesthesia, that this method of treating the condition under consideration has been made possible.

The patient is placed on either side and the external parts are carefully examined for abnormal discoloration of the skin, points of tenderness and hot or sore spots. The latter can be pointed out by the patient, as well as to indicate the points at which itching is most severe. This is done in order to gain some idea as to the direction of the channels for further exploration.

As there is usually more severe itching near the anus than elsewhere, the tissues immediately back and in front of the anus are liable to be most extensively involved in the pathologic process, and it is here that the initial incision is usually made. The rule is to begin operations as near to the source of the exudate as possible.

#### The Operative Technic

Having decided to begin posteriorly to the anus, the parts are anesthetized and an incision about one inch in length is made, cutting straight inward until a depth of an inch to an inch and a half is reached, enlarging the opening forward and backward so that the interior corresponds with the external incision. This done, a fine silver sound is taken and the parts are thoroughly explored. The tissues immediately posterior to the rectum will usually be found so badly damaged that the probe can be passed upward for four to six or more inches, and at times swept from side to side for a distance of two inches on each side of the median line.

Turning the sound backward toward the coccyx, either immediately under the skin or deeper, a channel will often be found extending over the coccyx some six, seven or more inches from the point of incision. Others may be found coursing along the buttocks, or forward from the point of incision around the anus to the scrotum or elsewhere. No portion of this area is exempt from these burrowings. From the main sinuses branches are liable to be given off, just as in the ordinary form of fistula, for these channels are in fact fistulas, but differ from the usual variety in that they are without pus.

After a thorough exploration the wound is cleansed and the channels irrigated by

means of a small silver cannula attached to a large aspirating syringe, or a small hard-rubber tube may be attached to a fountain syringe. For irrigating the wound and channels 10 to 15 minims of phenol added to 4 ounces of water, with a little glycerin, answers every requirement. Any simple antiseptic may be used, as these tracts seem inclined to heal up quickly if kept clean.

Not infrequently do we find that the main channel running parallel with the rectum communicates with this organ at a variable distance from the anus, three to four inches being the average. I doubt whether this condition is present before the probe is passed upward, for under such circumstances abscess and true fistula would soon result, but the likelihood is that the rectal tissues are so frail and lacking in resistance that the probe, passing up between the muscular and mucous coat, can be pressed through the latter without apparent effort. This will not occur when the sound is passed upward through an incision made external to the sphincters, but when one is led closer to the anal orifice and from thence upward just under the mucous membrane.

When a channel is discovered just under the integument, or approaching the skin at its distal end, an opening should be made so as to permit the probe to pass through, and irrigation in these cases is carried on from end to end. If the tract is tortuous, several openings may be made at various points along its route, and each one treated as a short, straight sinus. Should any of the tracts not heal, a branch will usually be found somewhere along its course, and if external evidences of its presence can not be found, the main tract is laid open, at several visits, until the point is reached. Here, as also in the deeper portions and along the main channel, the tissues will be seen to be of a peculiar mahogany color, indicative of the condition described.

If the incision is made anterior to the anus, in the perineum, similar conditions will be encountered; more especially in women. Tracts into which the probe may easily be passed can be found, and when they lead upward toward the rectum, the

treatment by gradual division, as in fistula proper, is indicated.

Office visits are required every three or four days unless the patient can have some member of his family attend to the irrigation of the channels for him. If not, he is directed to take hot sitz-baths two or three times daily. If the irrigation can be done at home, it should be practised once daily, followed by a hot sitz-bath, after which the wound is to be lightly packed with gauze.

In a week he will be ready for further exploration and partial division of some of the larger tracts. This is done by anesthetizing the parts, as before, inserting a grooved director and dividing the tissues above it. An inch or more may be thus divided at each treatment. Any spots along the line of incision that do not heal promptly should be suspected of marking the junction of branch channels, and exploration be made. Many of the smaller channels will heal after a few irrigations and division need not be carried any further than seems necessary.

Bleeding is seldom annoying. If it is, the bleeding points are ligated and the stitch removed in a day or two. After each treatment the wound is irrigated and lightly packed with gauze and a T bandage applied.

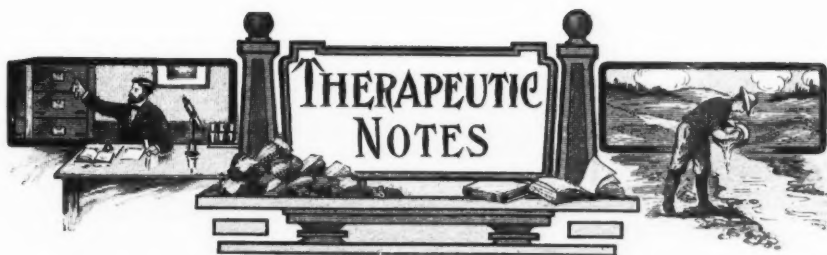
Sufficient has been said to indicate the principle involved in this method of treatment, although there are necessarily many minor details omitted. While this treatment is going on, hot rectal irrigation is practised at home, and as a result, the mastery is gained over the most treacherous disease of the anorectal region. Normal conditions are restored within, and such symptoms as anal or scrotal pruritus are immediately checked and in a short time disappear entirely. It is not unusual to find the pruritus disappear after the initial incision, evacuation of the imprisoned secretions and thorough irrigation, and in no single instance have I ever failed to relieve the condition entirely. When one considers how helpless we have always been when confronted with a genuine case of anal pruritus, the wonderful advance which this method of treatment represents can be the better appreciated.

*(To be concluded.)*

[This paper will be concluded next month. In the remaining installment Dr. Albright discusses the relation of proctitis to hemorrhoids and fissure and throws an entirely new light on the etiology and pathology of these common rectal ailments.—ED.]

**T**HIS is a law: That thought without subsequent action is useless. So—Do the thing. It is better to be partly right in practice than perfectly right in theory. Better, action that is sixty percent right than inaction that is one hundred percent perfect. Don't think too long without acting. Do it.

—System



### NEURASTHENIA IN GENERAL PRACTICE

Dr. H. B. Anderson, of the University of Toronto, writes interestingly on the above subject in the December, 1909, number of *The Canadian Practitioner and Review*. As for the treatment outlined, his plan is very properly symptomatic and individualizing. We should have wished that more stress had been placed upon the importance of "cleaning out and keeping clean." The neurasthenic with his diminished vitality must above all be protected against autointoxication from retained remnants of food as well as retained secretions.

### LEAD COLIC

A young painter was seized with violent colic, resisting all treatment, leaving him the prey to cruel tortures. For this Andrière prescribed inunctions with sulphur ointment, and a granule of hyoscyamine every half hour for four doses, then every hour till effect. In six hours his bowels acted and he was immediately relieved.

Clayton reported this case: A painter, aged 20; face pinched and pale, obstinately constipated for four days, mouth bitter, tongue yellowish, sense of weight in epigastrium, anorexia, borborygmi, atrocious pains in the belly, increased by slight pressure, the abdomen retracted. His lamentations were incessant. Prescribed hyoscyne and atropine, a granule each every quarter hour, till calming effect; croton oil, 4 drops in soap pills; black coffee as soon as it could be retained. When twelve granules had been taken the pangs had notably lessened.

Half the croton oil was then given with plenty of coffee. At 9 p. m., five hours after the doctor was called, the bowels acted, the pains not being entirely relieved. The rest of the croton oil was then given and the granules resumed. The second movement afforded complete relief, with prolonged sleep. He resumed work in ten days.

### PHENOL

Dr. Robert Gray, in *Albright's Office Practitioner* (December 1909), condemns the use of aqueous solutions of phenol as dangerous. He has employed a mixture of equal parts of phenol, camphor and chloral hydrate in all sorts of wounds, without any untoward effects and has always obtained excellent curative results.

### ARSENIC IN TUBERCULOSIS

Prof. Robin has made a recent communication to the French Academy of Medicine (*Gazette des Hopitaux*, 1910, No. 8) concerning his well-known theory that the demineralization of the organism is not only a predisposing factor in tuberculosis, but also a pathognomonic characteristic of the disease. It follows that the loss in mineral salts must be made good to the organism, and to that end Robin claims that both the rest-cure and the method of graded labor are dangerous. Forced feeding likewise may, in his opinion, have disadvantages. The indications are best met by the administration of earthy alkalis, while the demineralization is prevented by arsenic. Robin has found arrhenol to be of particular benefit in this respect. As for us, the remedies which



suggest themselves to meet these indications are calcium lactophosphate and strychnine arsenate—since the tonic action of strychnine is usually clearly called for. And to these we may add nuclein.

#### QUININE IN THE TREATMENT OF PEMPHIGUS

Dr. Rob. Bergrath (*Muench. Med. Wochenschr.*, 1910, No. 1) discusses the hopelessness of therapeutic methods in vogue in the treatment of pemphigus. Arsenic, recommended especially by Hutchinson, also strychnine as advocated by Neisser, have been useless in his hands. Mosler (*Deut. Med. Wochenschr.*, 1890) claims to have observed a cure after the administration of 40 Grams of quinine. The author reports a number of cases of pemphigus treated in the University Skin-Clinic in Breslau, in which the customary methods were employed in vain. Quinine hydrochloride, given in doses of from 4 to 8 grains three and four times daily, produced excellent results, the patients being discharged either cured or on the way of being cured.

#### CONCERNING PREPARATIONS OF BROMINE AND SABROMIN

Sabromin is the calcium salt of dibromobenzoic acid (Schepelmann, *Deut. Med. Wochenschr.*, 1909, Nos. 50 and 51). It is tasteless and odorless, and is easily borne. It is given in tablets of 15 grains three times daily, one hour after meals. There is no cumulative action, and no symptoms of bromism have been observed.

#### SABROMIN IN EPILEPSY

Sabromin is a preparation of similar combination as sajodin. It is recommended against epilepsy by Bratz and Schlockow (*Deut. Med. Wochenschr.*, 1909, No. 27). Sabromin causes much less cutaneous disturbances than do the alkali combinations of bromine. In cases where potassium bromide or Erlenmeyer's mixture have produced a favorable effect, but where these

remedies cannot be continued on account of skin affections, where arsenic together with the usual care of the skin remains without results, the alkali bromides are properly replaced by sabromin. Since this is more effective than the potassium salt, about one-third of the dose of the latter suffices to obtain like results.

#### A CASE OF NERVOUS EXHAUSTION

Lelievre tells of a nun, aged 50, confined to her bed for four years with profound debility, anemia and indigestion, but neither fever, emaciation nor pain. He commenced by giving strychnine arsenate, four to six granules a day. This was continued many months, the patient digesting food a little better and feeling herself less feeble at times. The doses were increased to 20 granules per day. A little benefit followed, but not health. The doses were raised to 40 granules a day, or 2 centigrams. Here little twitchings of the members were manifested. Strength was returning, the digestive functions were much better. Constipation was combated by rhubarb and magnesia. The dose was still increased until for six months she took each day five centigrams of strychnine arsenate, sometimes 0.06. The latter dose caused little shocks in the members and she could not control her movements. She was now in good health. The doses were slowly lowered until 0.02 a day were taken.

#### BISMUTH SUBNITRATE CONTRAINDICATED IN NURSINGS

Barabacchi (*Gaz. deg. Osped.*, 1909, Nos. 4 and 5) has published a review on the action of bismuth subnitrate. Repeating the experiments of Boehme, he found that nitrites and nitrous acid are formed out of the bismuth salt, at room temperature as also in the thermostat. The presence of staphylococcus aureus and albus may promote the dissociation. After milk diet the feces mixed with bismuth subnitrate were placed in the thermostat and considerable amounts of nitrous acid were found to have

formed. Hence the use of the drug may be dangerous in nurslings, since they are fed exclusively with milk.

#### CALCIUM SALTS IN THE TREATMENT OF EPILEPSY

*The Lancet* (London) for Jan. 8, 1910, page 118, reviews the results so far obtained in the treatment of epilepsy with calcium salts, which according to Italian investigators forms the etiological treatment of the disease. While some good results have been reported and several cases of epilepsy have been cured with large doses of calcium lactate, other reports showed entirely negative results. *The Lancet* concludes that "while the calcium method has not perhaps come up to expectation it is surely worthy of further and extended trial. It may be especially serviceable in those not uncommon varieties of severe petit-mal that are described, for instance, by Mr. Littlejohn in *The Lancet* for May 15, 1909, and in which he reports to have seen favorable results from the administration of calcium salts.

#### THE ACTION OF THE NITRITES

Mathews has found that the blood pressure after a dose of glonoin begins to fall in one minute, after sodium nitrite in 5 minutes; after erythol nitrate in 5 1-2 minutes. The fall in millimeters is practically the same, being slightly less with glonoin. With it also the pressure begins to rise almost immediately after the maximum fall has been reached, and the effects have completely subsided in thirty minutes. Sodium nitrite maintains its effect for about two hours; with erythol nitrate the blood pressure does not return to normal until after five or six hours.

#### REPEATED ATTACKS OF SCARLET-FEVER IN THE SAME INDIVIDUAL

H. Weissenberg (*Arch. f. Kinderhkl.*, Vol. 52, Nos. 1 to 13) reports seven cases, among which one out of his own practice, of

scarlet-fever occurring repeatedly in the same individuals. It appears that later attacks are more severe. Dr. Zappert, who reviews the article, says that he has seen a case of an undoubted second attack of scarlet-fever in a child. The literature on such cases is very meagre.

We should be glad to learn of such cases if our readers know of any. We have seen other acute exanthemata occur repeatedly in the same individuals, but never scarlet-fever.

#### HOT BATHS IN CHLOROSIS

Ferrario (*Gazz. deg. Osped.*, 1909, p. 1109) advocates hot baths as a valuable adjunct to the iron therapy in chlorosis. They are given best in the form of hot-air-baths lasting for from one to one and one-half hours. By this means the increase of hemoglobin and eventually of the number of red cells is promoted, this occurring more rapidly than with iron alone.

#### SOME POTENTIALITIES OF SUNLIGHT

Dr. Herbert T. Webster of Oakland, Cal., writes interestingly upon the above subject in *Ellingwood's Therapeutist* for January, 1910. He claims that the therapeutic properties of sunlight rival, if they do not excel, all that has ever been discovered by the devotees of radium and the x-ray. Sunlight, properly applied, surpasses both these agents in the cure of epithelioma and other superficial malignant growths, will do the work in less time, more reliably, is comparatively costless, and is at the service of every physician who is able and willing to invest a dollar in a common reading glass, and who can get his patient where the sun shines. Concentrated (focused) sunlight not only acts as a reliable cauterizant, destroying whatever tissue it is concentrated upon, but it leaves behind it a supreme healing power which enables the base of the destroyed tissue to recuperate itself rapidly. There is no other remedy comparable with it for restoring rapidly the vitality of an ulcerated or abraded surface.

The author relates the histories of a number of cases which he treated successfully with sunlight, combined with local applications; among them are, besides epithelioma, especially all forms of pharyngitis, also burns and other traumatic superficial ulcers.

Sunlight has long been known to possess considerable healing power, and is now extensively made use of, in tuberculosis-sanatoria for the treatment of tuberculous pharyngitis and laryngitis. The present writer recalls having used it with good results in the treatment of warts and other skin lesions. It is certainly worth considering, especially in indolent ulcers, and, after Dr. Webster's experience, in lesions suspected to be malignant.

#### QUASSIN AND ITS ACTION

Comparidon found that quassin in moderate doses increased the secretion of saliva, bile, urine, and, perhaps, the milk. It aroused the action of the digestive muscular fiber, that of the uropoietic apparatus and of the bile-ducts, augmenting mucous secretion and facilitating the excretion of normal secretions. With the sick, as a bitter tonic it arouses the appetite, renews the forces and facilitates normal excretion, rendering defecation easier and hastening the expulsion of renal and hepatic calculi. In doses exceeding 0.15 Gm. it determines symptoms of intoxication, local and general, with nausea, vomit, diarrhea, vertigo, febrile agitation, cramps and convulsions; remedied by chloral internally and chloroform externally.

#### DELIRIUM TREMENS TREATED WITH VERONAL

Dr Fritz Moeller (*Berlin. Klin. Wochenschr.*, 1909, No. 52) gives to his patients with delirium tremens or delirium tremens incipiens 15 grains of veronal immediately upon his arrival. If no sleep follows, but which rarely fails to occur, another 15 grains is administered after three hours. The patient then generally goes to sleep for from six to twelve hours, awakening quiet and

without delirium. If any tremor persists, he receives 7 grains more of veronal. This ends the treatment in the majority of cases.

A better way to control these cases is to administer a hypodermatic "shot" of hyoscine-morphine, just enough to control the excitement and induce sleep. As soon as possible promote elimination by bowels and skin; then brace them up.

#### OLEIC ACID IN HEPATIC DISORDERS

Dr. Pi  re Girard (*La Province M  dicale*, 1910, No. 4) attributes the well-known favorable action of olive oil in biliary calculus to its content of oleic acid. He has used the latter in a number of cases, not only of calculus and the hepatic colic thereby induced, but also in icterus and other hepatic disorders, and has found that oleic acid acts as a highly energetic cholagog. In hepatic colic one capsule containing 22 1-2 grains of oleic acid exerted a sedative action. The dose was repeated every four to ten or twelve hours. In infections of the hepatic passages and in general septicemias with danger of hepatic localizations the oleic acid was also found of value.

#### A CASE OF ASCITES

Froment said: A woman, aged 42, emaciated, very feeble, skin dry and earthy, pulse small and jerky, breathing short and difficult, no appetite, poor digestion, the little she swallows almost immediately rejected, frequent painful discharge of a few drops of reddish sedimentous urine, excessive distention of the abdomen with fluctuation, the vulva edematous. The patient was discouraged and looked to her speedy death, and it seemed as if this view would prove correct. The malady was of five months' duration, beginning with sharp pains in the lower abdomen and bladder, and notable oliguria. This subsided in a few days but recurred many times, the abdomen gradually enlarging.

This was the treatment: Strychnine arsenate, scillitin, a granule each, together, every half-hour; but later reduced to hourly

intervals. After a bad night, the next morning the patient voided about three pints of fetid urine with much sediment, and she felt better. Pulse small and fast. Squill and digitalis were applied to the skin of the abdomen, with poultices. Strychnine arsenate, digitalin and scillitin, a granule each, were given every two hours; with milk diet, and sodium bicarbonate, one Gram in water as a beverage. During the following twenty-four hours the patient rid herself of  $5\frac{3}{4}$  liters of urine similar to that described; breathing became easier, the abdomen smaller and softer, the pulse improved; there was no appetite; the urine was not albuminous. On the next day five liters of urine were passed and all the symptoms moderated. The improvement continued, the urine becoming clearer each day, so that by the eleventh day of her treatment it was reduced to  $1\frac{1}{4}$  liters each twenty-four hours; the abdomen was of normal size, appetite good, the strength restored. She passed 36 liters of urine in ten days. Two years later the cure had proved a permanent one.

This case was possibly one of urinary retention with enormous vesical distention, rather than ascites. The patient persistently refused the use of sound or catheter.

#### THE INTERNAL USE OF POWDERED KAOLIN

Dr. Max Nassauer (*Muench. Med. Wochenschr.*, 1910, No. 2) writes enthusiastically on the possibilities of powdered kaolin in ulcerative conditions and in bacterial affections of mucous membranes. After its successful use in leucorrhea (*ibid.*, 1909, No. 15) it has since been employed in acute rhinitis and also internally for diarrhea, for rectal ulcers, etc., with highly satisfactory results.

The method appears to be distinctly worth trying. There is no reason why the powdered kaolin, administered even in large doses internally, should do any harm, and there exists every reason why it should be a very efficient remedy in diarrhea and in other conditions in which the intestinal

mucous membrane is irritated. The possibility of inducing intestinal obstruction should not, however, be lost sight of.

Dr. Nassauer has devised a siccator for the application of kaolin to the nostrils, vagina, rectum, etc., which sells for a little more than one dollar in Munich, and which, no doubt, can also be obtained in this country.

#### ZINC PHOSPHIDE THE TREATMENT OF HERPES ZOSTER

In *The Medical Summary* Dr. Edward Gray suggests veratrine in the treatment of herpes zoster as a means of reducing congestion of the spinal cord. He suggests doses of one milligram every two hours or hour, reserving zinc phosphide for milder cases or later stages of the disease. It would be interesting to know the effect of gelseminine in this malady. In all cases it is wise to begin the treatment by eliminating from the case the element of fecal toxemia, that is by clearing the bowels and keeping them clear and aseptic.

#### THE IMPORTANCE OF THE SEQUELAE OF MEASLES

Dr. Ellingwood, in his *Therapist* for January, 1910, calls attention to the fact that the conditions that follow measles are fully as serious, if not more common and dangerous, than those of scarlet-fever or other exanthematous fevers. The doctor's warning is timely. People are all too prone to neglect an attack of measles, and often do not even call in the services of a physician. They do not realize that so many troubles of ears, bronchi, etc., with which children are often afflicted, are due to carelessness during measles and could have been prevented. Dr. Ellingwood mentions bronchitis, bronchopneumonia or croupous pneumonia in children as frequent sequelae, and to these diseases we would add tuberculosis of the lungs, since rubeola in a great number of cases is an important etiological factor in the activation of a latent tuberculous focus, and frequently unsuspected.

## SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

### CHECKING THE SECRETION OF THE LACTATING BREAST

Storrs states (*Surgery, Gynecology and Obstetrics*, Oct., 1909) that since 1904, in the Obstetrical Department of Johns Hopkins Hospital, an entirely expectant treatment has given the best results when it was found necessary to dry up the breasts after confinement. The breasts are left absolutely alone after delivery, being at most supported by a loose bandage if they are pendulous. Perhaps once in twenty cases a simple hypodermic of morphine or codeine may be necessary to relieve pain during active engorgement. On the fourth or fifth day the secretion gradually decreases, to disappear entirely before the end of the week. Among 171 cases carefully observed (107 ward-patients and 64 out-patients), equally divided between primiparæ and multiparæ, not a single case of mammary abscess developed during the treatment as outlined.

### MYXOMA OF PERITONEUM

Masses of jelly-like myxomatous tissue are occasionally found in the pelvis, with much fluid—myxoma of the peritoneum. Examination of the omentum will show it also covered with myxomata, and even the serosa of intestines may be greatly thickened and covered with myxomatous masses. It has been called "pseudomyxoma," "pseudo-myxomatous peritonitis," and simply "myxoma," but pathologists are not yet decided whether the trouble is a diffuse myxomatous degeneration or consists of true new growths on the peritoneum. It grows or spreads rapidly, sometimes with the formation of adhesions and of much thick jelly-like fluid. Women of forty or past are most often affected; and chiefly those who have borne children. It may follow rupture of an ovarian cyst, and is particularly liable to

appear when a part of certain tumors has been left in during ovariectomy, notably papillomatous cysts. When the deposits are extensive it is useless to attempt removal; one can merely clean out the largest masses and close the abdomen without drainage, thus giving temporary relief and in some instances a long respite from pressure-symptoms. When the pelvis only is involved it is worth the effort to remove every trace of the disease and thoroughly rub the peritoneum with gauze, the resulting adhesions obliterating all trace; but usually there is only temporary improvement.

### OVARIAN TUMORS AND LABOR

An ovarian tumor lying deeply in the pelvis may seriously interfere with delivery, particularly when bound down by adhesions. Large ovarian cysts with their walls may be ruptured during the violent muscular exertion of labor—sometimes with much collapse. If rupture does not occur the tumor may become infected and develop serious inflammation after delivery, necessitating a life-saving operation during the puerperium. On account of these possible complications and dangers ovarian tumors should be removed during the early months of pregnancy unless they are comparatively small, are well above the pelvic brim and are freely movable. There is little danger of abortion after such abdominal sections.

### UTERINE CANCER ARRESTED

In a case of advanced uterine cancer Burggraave prescribed the arsenates of sodium, potassium and strychnine as modifiers of nutrition; iodoform, cicutine and morphine for the lancinating pains; aconitine, quinine and digitalin for the fever; quassin for the dyspepsia. He asserted that by this treatment the cancerous process was ar-



rested and the tumor transformed into a simple fibroma. The very free metrorrhagia ceased, as well as the discharge, there were no more pains, the digestive powers were restored and nutrition resumed its normal course. The operation which had been ordered was postponed indefinitely. This was not really cancer—as yet. The diathesis was manifest but only in the dynamic stage.

#### A CASE OF ECLAMPSIA

Birabent describes the case of a primipara. He gave hyoscyamine and strychnine, four granules each every ten minutes, quinine hydroferrocyanide, six granules every quarter hour, with two of brucine; and a small dose of morphine and potassium bromide every five minutes. Under this treatment in half an hour the neck softened and the os dilated. The third spasm then followed, less severe than the preceding. The waters were broken; a fourth attack followed, still milder, and the child was delivered with forceps during the fifth convulsion. The child was asphyxiated but revived. For some hours the treatment was continued with lessening doses and longer intervals. Somnolence remained on the next day but there were no more attacks. Hyoscyamine and strychnine dilated the os, quinine banished the access, the bromide sedated and morphine calmed.

#### A POWERFUL ENEMA

For the parietic bowels, sometimes so alarming after abdominal operation, an enema of this composition is often effective:

|                        |                         |
|------------------------|-------------------------|
| Magnesium sulphate..   | 64 (ozs. 2)             |
| Glycerin .....         | 64 (ozs. 2)             |
| Oil of turpentine..... | 16 (oz. $\frac{1}{2}$ ) |
| Water .....            | 192 (ozs. 6)            |

This is to be thrown as far up the sigmoid as possible through a long colon-tube.

#### CYST OF OMENTUM

A cystic tumor of the omentum may lie so low in the pelvis as to simulate an ovarian

growth. In rare cases the omental tumor may grow so large as to closely resemble ascites. The fluid in these omental cysts usually resembles blood-serum, but occasionally much pure blood is found, indicating recent intracystic hemorrhages. On section the cyst-walls are found to consist of infantile omental tissue composed of small fat-cells between which lie loosely connected fibrillary connective-tissue strands. Usually the mass is pedunculated and therefore readily removable without danger.

#### THE TREATMENT OF WARTS WITH KELENE

Dr. Buedinger (*Muench. Med. Wochenschr.*, 1909, No. 37) advocates the treatment of warts with a spray of ethyl chloride. The wart is treated with the spray until frozen. The application must be repeated two or three times, when the growth partly falls off, partly shrivels up. Our readers are doubtless familiar with the sodium ethylate, which we have repeatedly recommended and which is generally efficient.

#### WOUNDS OF THE CORNEA

A neglected wound of the cornea may entail loss of the eye, whereas prompt and proper treatment may preserve vision. Traumatism of the cornea may be a slight scratch, a small puncture or a large wound opening up the anterior chamber freely, either with or without leaving a foreign body in the lacerated tissues. Fragments of coal, stone, splinters of iron, wood, etc., visible either by simple inspection or lateral illumination, should be removed with the least possible delay, after anesthetization with a 4-percent solution of cocaine, with incision if the foreign body is deeply situated or firmly fixed. After incision a little 3-percent ointment should be smeared over the cornea and into the lower cul-de-sac and the eye kept bandaged for two or three days.

Erosions and pricks apparently trivial often set up serious symptoms: sharp pain, photophobia, intense congestion, etc., with more or less loss of corneal epithelium; if no

grave infection (besides staphylococcal) occurs healing will follow in a few days under simple cleansing with saturated solution of boric acid every four to six hours, but if gonorrheal or streptococcal germs be engrafted upon the primary pus-infection the entire eye may be lost from a very trifling injury.

In these last-named cases pus soon collects in the lower part of the anterior chamber (hypopyon keratitis) and the ulcer soon presents a yellowish gray color and shows a marked tendency to become seriginous. In these, and in the severe injuries, the eye and lids should be washed with 1 in 6000 cyanide of mercury solution. Three times daily two drops of a half of one-percent solution of sulphate of atropine should be instilled, followed after the lapse of a few minutes by the application of the iodoform ointment.

If the infiltration shows a tendency to spread, the eye should be anesthetized with cocaine and the entire surface and edges of the ulcer gently burned with the thermocautery or galvanocautery. If the pus accumulates in the anterior chamber it must be let out by an incision at lower margin of the corneoscleral junction; and if the pus does not then escape it must be removed with a pair of curved tweezers. This must be followed by frequent washings and application of the iodoform ointment. If conjunctivitis or dacryocystitis exists appropriate treatment must be directed thereto.

Penetrating wounds are more serious on account of probable injury to iris or lens, with succeeding iritis or iridocyclitis a probable cause of blindness; prolapse of the iris into the wound being also a frequent complication, and more or less impairment of vision from corneal scars inevitable. Injury to the lens is followed by traumatic cataract, absorption of the fluid of anterior chamber causing opaqueness; this disappearing in young people by absorption, but rarely so in the elderly.

Careful efforts at disinfection of the lesion with the solution of cyanide of mercury are, therefore, imperative as soon as possible after injury, and these should be fol-

lowed by frequent instillations of 5-percent solution of collargol and application of hot bichloride compresses; any protruding iris being cut away and further protrusion prevented by use of atropine three or four times a day. Traumatic cataract going on to panophthalmitis means that enucleation will become necessary; if it progresses favorably the lens may be extracted three or four months later.

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#### GERANIUM FOR REMOVING NASAL POLYPUS

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Frank Webb treats nasal polypus by hypodermic injections of the specific tincture of geranium (*Eclectic Medical Gleaner*, September, 1909, page 398). He has cured three cases with it, one of whom had been operated upon. He injects about thirty drops of the tincture into the mass of the polypus, warning the patient that it will set up an inflammation, which will, however, subside in a few days. In all cases the polypus shriveled up and came away with the pedicle. There has been no return of the polyp.

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#### ANTISEPTIC INHALATION IN PULMONARY TUBERCULOSIS

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Robin, in a communication to the French Academy of Medicine (*Gazette des Hopitaux*, 1910, No. 8), says that he has found the iodide of allyl to be an efficient local antiseptic in pulmonary tuberculosis. Since it is irritating to the respiratory mucosa, he has, together with Dr. Gautier, searched for a combination in which this disadvantage would be obviated. The authors now offer the following formula, which he considers satisfactory:

Allyl iodide, from 1 Gram to 4 Grams; hydrofluosilicic acid, from 2 Grams to 6 Grams; gomenol (or eucalyptol), 10 Grams; decoction of carrageen, sufficient to make an emulsion; boiling water, q. s. ad 1000 Grams. The solution is used for inhalation by finely divided spray and is markedly antiseptic.



## Apocynum Cannabinicum

*A Contribution to Its Action*

By DR. FELIX-KRAMER of Frankfort-on-the-Main

**T**HE fluid extract of Canadian hemp, the root of which plant has been used for a long time, as a medicine, in Asia and America and in the last decade also in Russia, does not seem to have obtained in Germany the attention it deserves.

The active principle of this drug, according to Liebreich and Langaard, is a glucoside called apocynin, whose action is, like that of digitalis, a cardiac poison. Like strophanthus, nerium oleander, and vinca minor the plant belongs to the Apocynæ family.

The reports on this remedy so far as I have been able to follow them are unanimous in designating it as a cardiac tonic and diuretic. According to Gwovdinski of Kiev apocynum cannabinicum is known in Virginia as a household remedy and is used by some American physicians by preference as a diuretic. The dose according to this report is 15 drops, t. i. d., and given during the period of compensatory disturbance it causes no unpleasant side-effects.

According to Aleksejew the effect of the remedy appears, in proper cases, in two or three days. If no remedial action appeared in five days Aleksejew made no further use of the remedy. He prescribed small doses (from three to five drops) three to four times a day. After larger doses he met at times gastric disturbances and pains in the cardiac region. Cumulative effects he did not en-

counter. The dosage, according to Golubin, is five drops three to four times daily.

In Pawinsky's (of Warsaw) notices about apocynum cannabinicum the observations he made of the different effects of this remedy from those of digitalis on the vagus are remarkable. He found that apocynum cannabinicum acts more readily and energetically on the innervation of the heart than digitalis, but the effect of the latter is a more persistent one, that is to say, the effect of apocynum gives out more rapidly than that of digitalis. He would, therefore, use the remedy at shorter intervals, especially in cases of arrhythmia.

His dosage is somewhat higher: eight to ten drops of the fluid extract two to three times a day. However, one should always begin with small doses. Pawinsky rarely met with unfavorable effects on the digestion from this remedy, of which effects some authors speak very extensively. Cumulative effects he found none.

The indications for the remedy are, according to him, valvular lesions and affections of the heart muscle at the time of disturbance of compensation. A. Robin gave thirty drops of this remedy three times daily.

A case in which the extract of apocynum utterly surprised me was as follows: A tavern keeper, 51 years old, who was affected with arteriosclerosis, myocarditis and a high

grade of indurative hypertrophy of the liver. The edema and ascites could not be removed by the administration of the following remedies, viz., digalen, digitalis, digitalis with diuretin, alternated with caffeine, strophanthus, theocin, theophyllin, fluid extract equisetum arvense, infusion of juniper, and treatment with calomel.

All these well-proven remedies were often administered in maximal doses. At times the fluid exudate would be reduced to a minimum (1200 grams). Before paracentesis abdominis was made the fluid extract of apocynum cannabinicum was tried, and with perfectly surprising results. The next day, twenty hours after the administration of the remedy, the swelling of the legs, especially of the right one, was reduced and showed natural relations of parts. The ascites too was reduced, but the swelling of the liver remained stationary.

The dose used in this case was 12 drops, three times a day, gradually increased to fifteen drops at a dose. In spite of this improvement the swelling of the legs reappeared after four days. It is remarkable, however, that in a case where all other diuretics failed the apocynum should have shown such an almost magical effect. It is therefore explainable why Busch designates this remedy as the vegetable trocar. Such a remedy certainly deserves to be retried and administered in cases of compensation-disturbances before paracentesis abdominis is resorted to. Should clinical retrial of the remedy be further confirmed then the textbooks should give it a place among the other well-tried diuretics.—*Muenchener Med. Wochenschrift*, No. 45, 1909.

#### PEROXIDES AND PERSALTS IN MEDICINE

Dr. Brichta of Vienna spoke before the Assembly of German Scientists and physicians at Salzburg on the supplying of oxygen to the body with the peroxides. The author saw in the lack of oxygen one of the causes of various illnesses. He desired to prevent the damage done by the want of sufficient oxygen by its administration.

Inhalation he thinks must be supplemented by internal administration. For the latter the magnesium peroxide is most suitable. By the test with methylene-blue the author demonstrated that oxygen and hydrogen superoxide become free in the stomach and bowels when this is administered. The physiological effects are increase of blood-coloring matter and of the blood pressure, increase of renal secretion, increase of intestinal peristalsis, and a favorable influence on the gastric secretions. The author made tentative use of this substance in about 100 cases of various gastric and intestinal affections, and obtained favorable results.

Besides this peroxide (known under the trade name of magnodat) the author uses zincodat (zinc superoxide) and obtained favorable results from it in the eczema and intertrigo of children; he also found a substitute for boric acid and perhydrol in ear troubles in borodat.

Lastly the author found in magnodat a superior means of keeping milk from spoiling without affecting the taste of the milk. The author recommends the odorless borodat as a disinfectant especially in the sick-room and hospitals.

In the discussion that followed Winternitz of Halle remarked that magnesium peroxide has been known for some time, but it is difficult to decide in peroxide salts what the effective ingredient is, whether the alkali or the hydrogen peroxide. Petri however found in the Clinic of A. Schmidt that hydrogen superoxide by itself in 1-4 to 1-2 of a percent in solution is capable of reducing gastric acidity to complete neutrality by the production of mucus and not by reducing the hydrochloric-acid reaction. Coupling the hydrogen superoxide with an indifferent remedy such as agar-agar, Schmidt was able to materially influence intestinal fermentation.—*Muenchener Medizinische Wochenschrift*, 1909, p. 2183.

#### HEMOPHILIA

Drs. Morawitz and Lossen (Heidelberg) examined the case of an hereditary bleeder of which they gave a full account before

the Congress for Internal Medicine in Vienna, Austria, April 6 to 9, 1908.

The patient belongs to a family of bleeders in which many a member of it died from this affection. The patient came to the clinic for help against bleeding from the gums. Twenty Cc. of blood was taken from the median vein. (It is known, since the discovery by Weil, that puncturing of a vein is not dangerous in a hemophilic.) It was found in this case that the time for coagulation was between five and seven times longer than normal, which is about fifteen minutes, but the patient's blood requiring about two hours. This retardation is due to a deficient production of the fibrin elements in such blood, especially that of thrombokinas.

Fibrogen does not seem here to be essentially diminished. The anticoagulative substances which are normally present in the serum of the blood could not be discovered in that of this patient. It is likely that in a hemophilic we have to deal with a chemical degeneration of the entire protoplasm.

Lomel of Jena recommends Sahli's method, which is that of the injection of normal animal serums. In one case of very severe nose bleeding he injected hypodermically 20 Cc., when the bleeding stopped immediately. In ten days the bleeding occurred again and another like injection stopped the bleeding permanently.

In commenting upon the foregoing, Schwalbe of Berlin called attention to the old attempts of introducing into a hemophilic the blood of normal persons and which had proven effectual.

Pick of Prague mentioned the case of a hemophilic who was the sole survivor of a family of nine. The male members died on the battlefield and the females in parturition. The one survivor had bleeding from the kidney. Examination of his blood disclosed pronounced poikilocythemia, but when the patient would bleed till it finally stopped by itself [*blutete der patient sich aber aus*], the number of erythrocytes was normal (about 6,000,000).

Falta of Vienna stated that in a hemophilic case of Von Noorden's clinic he has

found during the intervals of cessation a retardation of coagulation, but that during the bleeding attacks (severe gastrointestinal bleeding) the time of coagulation was normal.—*Wiener Medizin. Wochenschr.*, 1908, No. 40.

#### RECTAL INJECTIONS OF PARAFFIN FOR HABITUAL CONSTIPATION

One of the treatments of habitual constipation much used in Germany consists in enemas of oil according to the well-known method of Fleiner. But in spite of the incontestable advantages of this procedure it is not devoid of inconveniences. It soils the clothing, obliges the patient to stay in bed after taking the injection to prevent the escape of the oil, often produces a distressing sensation due to the escape of malodorous gases formed by the decomposed oil, and it may also cause intestinal irritation.

At a recent meeting of the Berlin Society of Medicine, Dr. Lipowski, the chief of the Urban Hospital of the Deaconesses at Bromberg, made known a way by which the inconveniences of the oil injections could be avoided while at the same time keeping and even amplifying their useful effects. It consists in simply injecting into the rectum by means of a syringe and a soft rectal tube introduced to about twenty centimeters (8 inches) a mixture of one part of solid paraffin and eight parts of fluid paraffin. Before making this injection, which the patient can introduce himself while sitting on the edge of a chair, this paraffin mixture (which is fusible at 38°C.—about 100.4°F.) is to be liquefied in a water-bath or by any other convenient means. Of this mixture 200 Cc. (about 6½ drams) is to be injected each time. The injection is made at night on going to bed.

The paraffin is devoid of any irritating action on the intestinal mucosa and does not decompose. The patient is not obliged to remain in bed, because the paraffin speedily forms itself into a layer along the wall of the intestine, and differing from the oil, the paraffin does not tend to escape by the anus. The purgative action of the



paraffin is said to be superior to that of the oil.

It must be remembered that the absorption of water by the large intestines is much augmented in the case of constipated individuals, as the experiments of the author have demonstrated, which are as follows: Inject by means of a soft rectal tube and with feeble pressure, while the patient is in a sitting position, 200 cubic centimeters of physiologic salt solution, compress the exterior end of the tube, and let the liquid stay in the rectum for about fifteen minutes. On reopening the tube to let the injected liquid out you will find that the rectum of a person which functionates normally has not absorbed more than from 30 to 90 Cc. (8 to 25 drams), while a constipated person will absorb from 150 to 180 Cc. (40 to 45 drams).

This exaggerated absorption of water explains the rapid hardening of the fecal matter and its retention in chronically constipated individuals.

Dr. Fleiner long ago attributed to oil the faculty of diminishing the absorbing power of the large intestine, and paraffin is according to Dr. Lipowski still more efficacious in this respect.—*Berliner Klin. Woch.*, July 19, 1909.

#### SIDE-ACTIONS OF NEW REMEDIES

##### III. REMEDIES ACTING AS HYPNOTICS, ANESTHETICS AND NERVINES

*Alypin*.—In instillations in the conjunctival sac there frequently is complaint of burning stronger than that felt from instillation of cocaine solution. Simultaneous with the burning there is more or less reddening of the conjunctiva which, though soon passing off, may nevertheless occasion unpleasant hemorrhages in operations on the eye, so that here it is advisable to use cocaine. In local applications to mucous membrane of the mouth, throat and larynx, there is often, in sensitive persons, a disturbing sense of a very bad taste from alypin. Injecting this remedy into the gums sometimes produces necrosis, and the injection occasionally is very painful. In the endermatic application of alypin there is injury to the

tissues, while with respect to painlessness it is surpassed by novocaine. It is also said that it may produce headache.

*Andolin*.—This mixture of eucaine, stovaine and adrenalin is not suitable for regional anesthesia because in one case it produced blisters in the places where injection was made.

*Bromalin*.—Baucke observed an increase of the epileptic attacks in one case.

*Bromeigon*.—The bromeigons (which have egg-albumin as an ingredient) do not act as promptly as the alkali bromides, nor do they prevent bromism.

*Bromipin*.—Lorenz saw in one case an increase of epileptic attacks from it, and it acts slower than alkali bromides. Preparations of bromipin that have become black should not be used.

*Bromural*.—It fails to act in cases of pain, cough, angina pectoris, excitement, and delirium. Unpleasant effects of stupefaction, aversion to sleep, and a sense of heaviness in rising from sleep were also noticed in some cases.

*Ethyl Chloride*.—According to Seitz there is one death to every 6000 of narcosis with ethyl chloride. Contraindications for its employment are noncompensated heart lesions, heart-muscle disease, pericarditis, alcoholism, and hysteria. In accidental poisoning with this remedy artificial respiration is of high importance, and enemas of sodium bicarbonate solution are said to act favorably.

(To Be Continued.)

#### EGYPTIAN HYOSCYAMUS

This drug as found in commerce is in three forms: (1) stems from which the greater part of the leaves were removed; (2) pressed cakes, consisting mostly of leaves with very few leaf-stalks; (3) unripe seed-capsules, some of these containing a few seeds. The drug is derived from the *hyoscyamus muticus* L. and is especially valued for the high amount of alkaloids it contains. The Egyptian henbane can easily be distinguished from the ordinary *hyoscyamus niger* by the structure of the trichomes of its leaves.—*Pharmazeutische Zentralhalle*, 1909, p. 474.



## How I Became a Dosimetrist

**A**BOUT 1884 Dr. W. T. Thackeray told me what Dosimetry was doing and asked my opinion of it. My reply was "anyone making such statements must be a knave or a fool." He asked me as a favor to him to send to Fougere in New York for Chanteaud granules of aconitine, digitalin, hyoscyamine and strychnine arsenate and use them as he indicated in my next case of pneumonia in the first stage. "Of course," he said, "you can leave them at any minute that you wish and resume your stand-by." I sent for them and some Burggraave literature which I studied, and carried the granules in my pocket. The first case was V. V., 50, miller, first stage of pneumonia of lower right lobe. Temperature  $102.5^{\circ}$  F. Patient had taken generously of salts, the intestinal canal seemed well cleared. I put the four kinds of granules in small dishes, directed temperature taken every two hours, ordered one each of the granules every one-half hour while temperature was above  $102.5^{\circ}$  F.; every hour while it was between  $101^{\circ}$  and  $102^{\circ}$  F., every one and one-half hours while it was between  $100^{\circ}$  and  $101^{\circ}$  F.; every two hours while it was between  $99^{\circ}$  and  $100^{\circ}$  F. The medicines were to be omitted when the temperature was below  $99^{\circ}$ , but resumed should fever rise again.

This was at 10 a. m. I called twenty-four hours later. V. was sitting in a chair, clothed and well. But for his wife he would have gone to the mill. I ordered him to remain indoors twenty-four hours longer, and left him, deeply regretting my inability

to diagnose inflammatory lung troubles, on my correct diagnosis of which I had prided myself up to that time, for of course the granules simply could not have done that.

During the rest of that winter, and since, I either have not had a case of pneumonia in the first stage, or *the granules did do it*. I strongly suspect the latter. I began to hate them as they so often made me doubt my diagnosis.

My next "auto-proselytizing" came about like this: A servant who was a great favorite with a dozen young girls of from six to twelve years of age was taken with severe anginose scarlet fever. The day before I saw her these children had been with her about half a day. Inquiry showed that one of them belonged to a "family of name." I called on the child's mother, explained the situation and asked to be notified early should her child show any indisposition. When the time came I was called and found the child coming down with scarlet fever. I did not know then what I have since learned about calcium sulphide or we should not have waited for the completion of the incubative stage. During this stage not only scarlet fever but diphtheria, smallpox and measles can as surely be arrested by calcium sulphide as 2 and 2 make 4. The patient's temperature was about  $101^{\circ}$  F., and the patient's throat sore. I placed the calcium sulphide and febrifuge before her and directed that after the administration of a laxative they be used. The next morning the child was well. The mother re-

ported that towards night a few spots had appeared on the child's chest and neck, but they soon disappeared. This completed my reformation.

I have studied "dependable principles" ever since, my only regret is that I know so little about them. I am content to be called a fool or a knave if I can get these "arms of precision." The peace that passeth all understanding is the gift they bring to their users.

C. S. PIXLEY.

Winnsboro, S. Car.

### TYPHOID FEVER

I read with interest what is being said about the treatment of typhoid fever and suppose others do also.

So I will give you an outline of the way in which I treat cases coming under my care. Let me say in starting that I do not treat several hundred cases yearly as many do, and that may account in a measure for my success, as almost all got well. Now grin and say they weren't typhoid, yet blood tests were made in some and the pathologist said that they were; there were other cases in which no test was made, but which had the same symptoms and came through the same way, so I say they were typhoid fever and treated them as such with the result that all got well. I have lost but one case in twenty years and that patient was seen late and died on the tenth day from hemorrhage.

Many doctors are much opposed to the use of the coal-tar derivatives, but more use them than one may think.

I give acetanilid from start to finish in combination with salicylate of sodium and powdered licorice. All my patients get this in small but frequently repeated doses which are governed by the rise and fall of temperature. I never allow the temperature to remain high for a long time.

I start the treatment by giving for the first three days four 5-grain doses of calomel each evening, one hour apart, with a saline the following morning. This will clean out the alimentary tract. Then I follow with the sulphocarbolates in doses sufficiently

large and frequent to keep the odor down and the passages as nearly normal as possible; a small dose (say one grain) of calomel every second day, may help matters some. I do not give many or large doses after the first three or four days, but always keep the bowels well cleaned out, and the stools odorless.

Now I do something more and do it all the time in alternation with the acetanilid compound. I give ecthol, cactus, nuclein and strychnine every six hours; combined with this, if there is any nervousness or loss of sleep, *passiflora incarnata* in doses sufficiently large to produce the desired effect and it will do it if you give enough.

Bathe as often as necessary but not too much and never with iced water.

Malted milk is preferable to sweet milk. I do not give the latter at all.

Sour milk is all right and acts well.

Some patients will complain of pain in the region of the stomach. Codeine will control this nicely and safely with no unpleasant after-effects. If this plan is faithfully carried out through the entire run of the fever this will last from fifteen to twenty-one days if it has a good start when you are called. Many cases will be aborted if seen early and treated as above, and there will be little or no tympanites, no delirium, little loss of sleep, no nervousness, a fair appetite. The bowels will cause little trouble, and the kidneys will always act well. No bedsores, a clear mind and a steady hand.

The patient will write as intelligently and as steadily on the twenty-first day as he did the day before he got sick. There will be little loss of flesh and he will be well when he gets up. With this method of treatment the blood will not become thin and there will be little nosebleed if any, and seldom if ever any bowel hemorrhage, if this treatment is commenced early and energetically carried out. This I know as I have had no hemorrhage in any case with the one exception above mentioned.

The spleen will not swell greatly and will not cause any trouble. The tongue will never get dry and there will be no accumulation on the teeth. With one exception I

never have had a case last more than twenty-two days and this one had a relapse on the seventeenth day and ran two weeks longer; the fever had been gone three days when this happened, but the recovery was just as nice as in any of the other cases.

There are many deaths from typhoid fever in our city and the surrounding country every year. I am very lucky in the cases I get or I manage them much better than others, as they lose them and I do not.

M. E. JOHNSON.

Pittsburg, Kan.

[I have generally found that physicians who treat their typhoid fever patients on the "clean out, clean up, keep clean" plan get them on their feet in rather less than the "orthodox" time, and that the patients do not run down as badly as others do.

I confess, Doctor, that your initial doses of calomel appear unduly large to me. Twenty grains of calomel in one evening, for three evenings running, would clean out a wooden Indian in front of a cigar store. But opinions differ, and you have probably found the doses alright, else you would not stick to them. Also I don't like acetanilid. With these exceptions, which rest upon a difference of opinion, your treatment is certainly "heap good medicine," and you ought to be a very successful medicine man.—ED.]

#### ITEMS: CURIOUS AND PRACTICAL

Inoculation against smallpox was carried out in Boston by Dr. Zabdiel Boylston in 1723. He was warmly supported by the Rev. Cotton Mather. Six deaths occurred in 286 persons inoculated—21 : 1000. There were 844 deaths in 5759 not inoculated—146 : 1000.

In the eighteenth century the following was one of the naval rations (on sea-going ships): Wine, 2-3 pint; biscuit, 1 1-2 to 2 pounds; beef or bacon, 1-3 pound; codfish, 3-4 pound; vegetables, 1-4 pound; one anchovy or two sardines; lima beans, 78 liters for 444 men—the entire crew of one ship. On fast-days, Monday, Wednesday,

Friday and Saturday, 1-4 pound cheese was allowed instead of meat.

There are three distinct types of malaria: (1) Pernicious, or aestivoautumnal, due to the *laverania praecox*; (2) tertian and double tertian, formerly known as quotidian, due to *plasmodium vivax*; (3) quartan, due to *plasmodium malarie*.

† Sodium metavanadate in doses of 20 centigrams, one-half hour before meals, is recommended for anorexia.

Heinde recommends as a stimulating local application for chronic pharyngitis the following, the numbers representing parts per 1000 in glycerin: trichloracetic acid, 8; ferric iodide, 4; potassium iodide, 7.

Zypkin uses hypodermatically for hepatic and other visceral sclerosis, 1.5 Grams of keratin in 2.5 Cc. of sodium bicarbonate solution.

Dr. Nattan Larrere of the Hotel Dieu, Paris, uses the following solution for preserving microscopic slides of urine, feces, etc., known as Amann's lactophenol solution: Glycerin, 2; water, 1; crystallized phenol, 1; lactic acid, 1.

An old notion correct: Trilbert of Paris finds that 5 Grams of cane-sugar burned under a glass bell of 10 liters' capacity produces enough formic-acetylene-hydrogen to kill typhus, tuberculosis, cholera germs, and to deodorize and destroy saprophytes in rotting meat, eggs, etc. A. L. BENEDICT.

Buffalo, N. Y.

#### A SPRING AND SANATORIUM IN FLORIDA

Dr. F. B. Moodie of Lake City, Florida, writes enthusiastically about the health-giving climate of his section of the country, which is by some said to be of particular benefit for patients afflicted with pulmonary tuberculosis. From his personal experience the doctor is convinced that the water of a mineral spring which he owns is of great assistance in the climatic dietetic treatment of tuberculosis, because it in some way counteracts the digestive disturbances which frequently complicate the tuberculous disease.

Doctor Moodie was himself sent to Florida some thirty odd years ago when suffering with "incipient pulmonary consumption complicated with dyspepsia and rheumatism," and was told to find a spring of water favorable to digestion, on the very sensible theory that a faulty digestion disturbs the general nutrition and thus renders recovery from the tuberculous disease doubtful, to say the least. Dr. Moodie describes in his letters how he found "the mythical fountain of youth," which had been vainly sought by Ponce de Leon. In his own words, in less than a fortnight after finding it his indigestion was apparently gone, he could eat anything with impunity and although a physical wreck he was soon apparently "rejuvenated." Since 1883 he has been located near that spring.

The spring in question appears to have been held in high esteem by the old inhabitants who used its water against many ills; and although it has never been analyzed Dr. Moodie is convinced that the water is of great value in digestive disturbances. It is located in a beautiful spot near Lake City, which claims the lowest mortality of any city in the United States of equal population, is sufficiently far inland to be free from fogs, with nineteen days of sunshine out of twenty in winter, and where nature has been most bountiful, not only with her beauties but with the good things of life to be gleaned in field and garden. Dr. Moodie offers to turn over the spring with ample grounds, comprising five, ten or fifteen acres, for the purpose of establishing a great sanatorium for the treatment of consumptives, requiring in return only a reasonable share of stock in the enterprise.

We do not quite know how or by whom Dr. Moodie wants such a sanatorium to be built. From his description of the spring we agree with him that it "seems to act upon the mucous membranes of stomach and intestines" and that it may possess merit in some forms of indigestion. Furthermore, his contention is sound, that a good digestion is necessary for the successful treatment of pulmonary consumption. For the approved treatment of the latter disease by general

hygienic-dietetic methods the climatic and other conditions of Lake City appear to be highly favorable. We therefore pass the doctor's offer on to the readers of *CLINICAL MEDICINE* and wish him success in his plans and hopes.

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#### AUTOMOBILE CARE AND THE DOCTOR'S STABLE

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Just let me get my oar again for one short stroke. The doctor's vehicle seems to have been pretty much the topic lately, but they all more or less lack some essential to mark their ideas or methods as being more nearly perfection. The auto man tells his troubles, the horse man his. A good percentage of the auto men fail to consider the proper housing of their machines. By housing I don't simply mean the roof over them, but more particularly the outfitting of the shed. The auto shed should embrace the "make up", signified by the expression "ship-shape" and "in a nutshell." It should be planned with a similar end in view as is a ship's galley or a French kitchen. Everything compact, accessible and as far as possible insured against mishap. "A place for everything and everything in its place."

The contingencies of cold weather should be provided for, for then the man who wrote some time ago would not have found it necessary to get a kettle of hot water and thaw out his machine before he could make a call.

The horse advocate seems to be without the knowledge of how he could make things more serviceable, and therefore more ideal.

The swinging harness, such as is now used by all city fire departments and ambulances, is the ideal equipment for the doctor. Strange, how few you see in private use. For ten years now, my harness suspended was always hitched to the buggy, ready to drop over the horse's back at a moment's notice. When I came in from a drive the harness and buggy were placed in position in the carriage room, ready at a moment's notice to be under way again, hitched, harnessed and out on the road. I used to hitch up, crack the whip over the horse's back and be



on the road in thirty seconds by the watch. I have hitched "against time," with a stop-watch held on me, in 11 seconds. Now, I would like to see people beat that if they can with an auto, especially when the car has stood some time and all oil-feeds, gasolin, valves, etc., are shut off.

I fixed up the same stable outfit for a classmate of mine who practises in the country. He certainly had the natives agog by the way he could get started when he had to, even to hitching at night without a lantern. Today you could not hire him to hitch a horse the old way.

N. H. RICHARDSON.

Cleveland, O.

[This suggestion of the swinging harness is a good one. When people are sick they want a doctor and want him *quick*.—ED.]

#### MEDICINE AND SOCIETY

The December AMERICAN JOURNAL OF CLINICAL MEDICINE had an article, "How to Get Your Share of Business." As this question is an ever-present one, bobbing up in various guises, and fraught with much practical interest to all of us, I now ask space for a few commonplace things which may help to just conclusions in the solution of this vexed question.

In order to treat a subject, we must first understand that subject in its detail, and then clear away the rubbish of prejudice, self-interest, and conventionalism, which are sometimes enthroned in the place of Love, Truth and Justice.

The first query that arises, is, What is the medical profession, or any profession or calling? The answer to this question is very material and upon it will depend whatever of betterment we shall be able to offer. Is the medical profession a unit, a whole thing of itself, or is it a part of a greater unit or whole, which when taken apart, injures, if not destroys both? I think the statement is enough to show any fair mind that we are but a part of the great body politic, and to know our functions, we must study the organization of that body and abide

in it, as the branch abides in the vine. We can no more promote the growth and development of our profession at the expense of organized society, than the branch can grow severed from the vine.

Flowing from these primal truths comes first a common interest, linking together every trade, calling and business into one common brotherhood, making the interest of each the weal of all, so that so long as harmony prevails, good ensues, while the very first discordant note trills in rebellion.

Now let us consider some of the ills we complain of in the light of these premises. What do the professions and trades owe to the great mass of humanity in which their destinies are cast? To conserve their true and full interests in their respective lines. What is due on the other side? Full and ample support, measured by the interest of all concerned. Remember, the highest authority, the court of last resort, is the "*genus homo*;" he reigns supreme, hence to get his cooperation, his sovereignty must be recognized. There are many subdivisions into professions, trades, callings, purposes and objects of this great compound unit, society, but none are clothed with authority, commensurate with that of the parent body.

Therefore, when one subdivision enacts rules and regulations, such laws can apply only to the division enacting them, and not to another or the whole, for they have no power to enforce them, which clearly defines the subjects upon which a division may legislate. Any question involving the sovereignty of another must be fixed by diplomacy. If I have not misconstrued plain evidences, it is the violation of these evident truths that has led to trouble with the medical profession.

We are servants and not masters of the people; yet we have undertaken to rule beyond our authority. The result has been antagonism all around. The self-complacent and authority-loving have erected barriers which drive the people from us, and in their wanderings they have met the patent fake and the proprietary charlatan. It seems to me that medical ethics ought to be a very

common-sense arrangement, allowing such departures as may be established to be honorable. The tendency to leave the poor to public charity is not only taking that much from us, but much of other business which pays. We should do it all and induce the public to help in the work, and by so doing regain lost prestige.

We should quit legislating about fees. The public will never cease to sit in judgment upon what they have to pay, and it is right they should. The doctor and the patient in a given case know better how much he is able to pay than any other mortal. The doctor has the services, with all that means, and the other fellow has the pay. They want to exchange. Who will say it doesn't take two to make a bargain?

Let me illustrate this principle in another way. This is an age of combination; soulless corporations are reaching out to control every conceivable source of man's supply. Suppose such power should take hold of the medical profession, avowedly to curtail the number seeking to enter it, and to select from the list certain medicinal agents, these only to be used. Would it avail, thus to close the ranks, and improve its power to force its mandates upon an unwilling people? Let the tokens of disintegration now apparent in most trust companies speak for it. I verily believe the doom of all soulless corporations is at hand; the potential arm of the people is raised to strike. Let us not at this late day incur its displeasure. Rather let us seek that more enduring relation with our fellow-men, which takes him by the hand and in glorious fellowship leads him in the paths of peace, while we grow in the confidence thus built up.

Medical societies are all right, as other trade organizations are right. The field is wide for their usefulness, in elevating the standard of membership, and in ways untold in urging on to higher attainments. But societies, knowledge, force, nothing will ever enable a calling to over-ride the public will, when founded on justice. Therefore, all organizations for control of human action must recognize the right of appeal,

which limits them to the bounds of Truth and Justice. Professional ethics is wholesome and necessary, but if proscriptive and unjust, give cause for appeal and reversal. By these principles, so imperfectly set forth, the true relation of the professions to the great Master they serve is and will be restored, and the autonomy maintained, and every jarring discord eliminated, and merit be rewarded.

As to the matter of which "Incog." complains: "How shall each obtain his share of business?" By the above outlined plan we hope to avoid all obstructing laws and customs, affording equal chance for each and every one to begin that individual effort which must henceforth determine the end. No two will end alike. No advertising trick, or scheme can fill the place where only merit wins.

R. I. MCQUIDDY.

Lawrenceburg, Ky.

#### CATARRH AND NASOPHARYNGEAL AFFECTIONS

We physicians of the two lower counties of this state frequently meet with malarial complications in almost every disease of the human body. If the blood of every inhabitant in Kent and Sussex Counties were examined, I believe that the plasmodia malarie would be found in fully 80 percent. Therefore, it is a natural inference that in diseased conditions in our inhabitants the malarial germ must necessarily play a very important part.

I have found that catarrh of the throat and nose is a very common affection in this part of the country. Naturally, if most of our people have a dormant chronic malaria, were they attacked with any acute catarrhal disease, the dormant malarial germs become instantly an active factor in the disease.

Often where we have cases of acute catarrh of the throat and nose or any of the adjacent mucous surfaces which do not react to the prescribed treatment, both local and constitutional, we may suspect secondary malarial autointoxication.

Taking up a few of the generalized symptoms of unresponsive throat affections, I

will begin with the local objective signs. The throat shows an ugly, red, inflamed surface. Reflecting the posterior nares with a hand mirror the mucous surface is seen to be covered with more or less thickened tenacious yellow mucus. There are the general symptoms of what the laity call a "cold."

In malarial complications, where the ordinary local means, though often repeated, fail to produce very much improvement, even after several treatments, it has been my rule, since locating in central Delaware, to suspect malarial complications wherever there is any sign of temperature.

Going back for a moment to two or three general symptoms of chronic malaria which one finds in throat affections, let me first mention the liver involvement. In all malaria, either acute or chronic, a catarrhal jaundice invariably occurs. This to a certain extent shows itself in malarial throat affections by the thickly coated tongue, bilious conjunctivæ and more or less sallowness of the skin.

Second. In nearly all malarial affections herpes is present in some form or other. The favorite seat in malarial throat conditions is about the nose.

Third. In a great many chronic malarial conditions there is an enlargement of the lymphatic glands. Where you get enlargement of the cervical glands in catarrhal throat affections it points very strongly to secondary malarial infection.

Fourth. A slight albuminuria invariably occurs in malarial infections; therefore, if the albumin be present in catarrhal throat affections, malaria may be suspected as complicating the trouble.

Fifth. In chronic malarial conditions of long standing hemorrhage from the nose and throat is quite common. Where hemorrhage is produced without any apparent cause, we may suspect malarial complications.

Sixth. The nervous symptoms in chronic malaria are very prominent and neurotic conditions found in conjunction with catarrhal throat trouble may indicate chronic malaria.

It should be borne in mind that every case of throat trouble does not necessarily have

to be of malarial origin, even though complicated by some of the above symptoms; however, where one has a case of any type of throat or nose inflammation that does not react promptly to the prescribed treatment for such conditions, you may look for secondary malarial infection and you will find that the regular antimalarial treatment will usually bring the desired results. It is my practice to give quinine and a colagog in all throat troubles where I do not get results after the first treatment.

Several optimistic physicians claim that the malarial germ is more or less a bogey, but we must bear in mind that our little state is surrounded by marshes on all sides, and that little if any attempt has been made to drain them, therefore we are bound to have more or less malaria in Delaware.

C. J. HARBORDT.

Dover, Del.

[There are some ideas worth investigating in Dr. Harbordt's paper. Many of our readers live in malarial districts and should be able to verify the doctor's findings and give practical points on treatment. It's up to the "family" to comment or to correct. —ED.]

#### ALBRIGHT'S OFFICE PRACTITIONER

With the December number of *Albright's Office Practitioner* this journal has ceased to appear as a monthly and will be transformed into a quarterly under the name of *The Office Practitioner*. The character and purpose of *The Office Practitioner* will remain the same as its predecessor. We have in the past much enjoyed Dr. Albright's excellent publication, which always was replete with good and useful suggestions. As in the past, it will advise the practitioner how to consider the business side of his calling, a problem all too much neglected, owing to some mistaken idea as to the dignity of the profession that stands too high to be concerned in mere financial matters. Physicians owe a debt of gratitude to Dr. Albright, among other men, for pointing out the error of such notions and for showing

how to conduct an ethical practice successfully from a financial standpoint. We wish the doctor every success in his new program.

### HEADACHES AND HOW TO TREAT THEM

While no classification of headaches is entirely satisfactory, it is quite feasible to speak of (1) hyperemic headache, (2) anemic headache, (3) neurasthenic headache, (4) rheumatic headache, (5) syphilitic headache, (6) toxic headache, (7) sympathetic headache, (8) hysterical headache. The last two forms are liable to overlap upon former varieties.

1. In hyperemic headache the pain in the head, resulting from active hyperemia, is accompanied by flushed face, redness of the conjunctivæ, pulsating arteries, especially the carotids, dizziness aggravated upon stooping or bending the head. Alcoholic stimulants, excessive use of tea and coffee, and inordinate sexual excitement may induce it.

The passive form of hyperemic headache is easily diagnosed from its usual association with cyanotic discoloration of the face and ears. It is met with in many of the affections in which a partial venous stasis in the head is a marked symptom, as in certain diseases of the heart, or tumors of the neck pressing on the jugular vein. Contraction of the muscles about the clavicle, pressing down and hindering the drainage through the jugulars, is a cause of passive headache. The association of the sympathetic with these headaches is mainly vasomotor. It is at least doubtful whether headache depends upon any vascular changes in the brain itself except in pressure on the nucleus of the fifth cranial nerve. For permanent relief remove the cause.

2. The anemic headache is constantly met with in practice, occurring in loss of blood at parturition, after operation, after profuse diarrhea and with constipation. The characteristic of the pain is a "dragging" in the head, which is of a fairly active nature.

3. Neurasthenic headache is difficult of classification since it, in so many ways, resembles the passive form of the hyperemic headache. Long-continued brain work, especially if monotonous anxiety, depressing emotions and all causes of nervous debility conduce to this form of headache.

4. The rheumatic headache is met with after chilling the skin, after sweating on the scalp or nape of neck. It may occur under various conditions which produce a chill. The headache of gouty people is of this form and is usually frontal and associated with vertigo.

5. The syphilitic headache may be a warning of brain affection. In secondary syphilis it may mean periosteal affection of the skull-cap. It may exist without any coarse lesion and be accompanied by some swelling of the cervical glands. The one invariable symptom of this type of headache is its greatest intensity at night. The intervals of attack usually become smaller and smaller, day and night, and it may sometimes lead even to delirium and mania if neglected.

6. The toxic headache is usually due to the absorption of some toxins in the circulation, e. g., such as are developed in constipation. Some patients suffer from headache due to alcohol, chloroform, carbonic oxide or sulphureted-hydrogen intoxication, or even to the poisonous effects of lead and sometimes opiates. Toxic headache is usually a symptom of uremia.

7. The sympathetic headache depends entirely on a morbid condition of the vasomotors of the membranes due to an excitability or a paresis of some vasomotor center, but is usually due to some reflex action.

8. The hysterical headache can often hardly be separated from the sympathetic. It is frequently intense and very real. It may be hyperemic, or anemic, or be set up by reflex irritation, or it may be symptomatic of brain-starvation from insufficiency of brain-food either in quality or quantity. It is sometimes associated with photophobia, tinnitus and vertigo. It is unquestionably a neurosis depending on abnormal conditions

of the arteries and sometimes it is accompanied by neuralgia of the trigeminal nerve.

J. E. WATSON.

Chicago, Ill.

[This classification is a very interesting one. It should, however, be supplemented by an article—or several—on the treatment of the various forms. In acute congestive headache, for instance, the patient should receive a quickly acting saline purge, aconitine or gelseminine if the pulse is of high tension, and cicutine or the bromides to relieve the hyperemia. For passive congestion keep the bowels clear with saline cathartics, equalize circulation with digitalin, or digitalin plus dosimetric trinity, possibly stiffening tension with small doses of ergotin or strychnine arsenate. Anemic headaches are benefited by iron and arsenic (as in arsenates of iron, quinine and strychnine, with nuclein), generous diet, care of the intestinal canal, never forgetting removal of the cause. Neurasthenic headaches are often due to alimentary absorption and are lessened (and sometimes cured) when the patients have learned the lesson of "clean-out-clean-up-and-keep-clean." And so we might continue—but we want to persuade our readers to do that. Who will volunteer with a short article on "The Cure of Headache?" We all know enough to give an acetanilid mixture to *relieve*. We should know more!—ED.]

#### LOOK OUT FOR THE COLLAR BUTTON

One half an hour ago I finished reading your editorial on the collar button. Twenty minutes after reading it Mrs. E. comes screaming that her child, eighteen months old, had swallowed an iron screw used for woodwork.

She lives only one and one-half squares from the office. I responded at once and arrived in possibly two minutes, just as the child gasped its last breath. So you can see there are other things that are dangerous besides collar buttons.

I passed my finger to the larynx and found the screw in the larynx with the head above.

It was firmly grasped by the spasmodic action of the larynx and could not be removed without cutting to which the parents objected, inasmuch as the child had expired.

CHAS. J. HEMMINGER.

Rockford, Pa.

[These sad experiences come to all of us. They are all the more sad when we are powerless to help, as in this case.—ED.]

#### CALCIUM SULPHIDE IN DIPHTHERIA

Among the many reports of the present treatment for diphtheria I thought it might be interesting to give a short history of my experience in the treatment of diphtheria for the last thirty-five years, showing the value in my hands of antiseptic treatment. In the winter of 1873-1874, in Grass Valley, Nevada Co., we had an epidemic of diphtheria which proved to be severe because in about twenty cases there was not one recovery.

The cases assumed a virulent form from the very start. Many of the cases had the postnasal parts affected, sometimes the conjunctiva was coated, and in a few instances the region around the anus. All had active delirium after the first day or two and in their delirium would injure their hands and arms, and all such places became coated with the diphtheritic membrane. Death usually resulted in a few days. I happened to have most of the cases, and as I had never seen a case of diphtheria before, I was discouraged and begged the people to get the older physicians; but it was all the same, since all the patients died.

The authorities we had in those days were Watson-Condie on "Diseases of Children," Wood's "Practice," in two volumes, and several medical journals, and the principal treatment consisted in local applications to the throat, spraying of the nose, the administration of quinine and brandy and iron to sustain the patient. Result, all died.

This set me to thinking, and I made up my mind that in the next case of diphtheria



I had I should saturate the patient with some kind of an antiseptic.

In May of 1874 I removed to Virginia City, Nevada, where the sewage of the city ran in an open flume under the sidewalk, and many times the odor was so unpleasant that people had to take the middle of the street. The consequence was that we had diphtheria all the time. About that time Ziemssen's "Practice," a German work, appeared, and among other good things in it was an application for the throat of a mixture as follows; chloral hydrate, one dram; glycerin, one ounce. To this I added concentrated carbolic-acid solution, from fifteen to twenty minims, depending upon the age of the child, and applied it to the throat every one or two hours. Children under five or six always swallow any solution and they get enough carbolic acid to make it appear in the urine. To older patients I gave carbolic acid enough to get the odor in the urine as soon as possible and held it at that until the disease was under control.

I wish to illustrate by an epidemic which appeared in the fall of 1874 that there were no mild cases. About October, 1874, an epidemic of diphtheria broke out in Smith's Valley, 160 miles away from Virginia City, and my brother, Dr. Peter Manson, who then resided in Gold Hill, a suburb of Virginia City, was called and took a plentiful supply of supplies with him, getting there as quick as horseflesh could make the trip.

When he arrived, there were twenty-one out of a total of thirty-two children dead from diphtheria and the other eleven down with the disease. One died the next night and he saved the other ten.

In 1880 I removed from Virginia City to North Bloomfield, Nevada County, a high ridge, and had a good many cases of diphtheria every winter, but had no trouble with them.

I still follow the antiseptic treatment, and for the last ten years I have been using the calcium sulphide and find it all right. Four years ago we had a small epidemic here in Lincoln and the disease went through whole families and three deaths occurred. I had

a good many of the cases and by saturating the families with calcium sulphide I kept the disease from spreading and my patients made a quick and complete recovery. Of course I gave them 1000 units of serum as a precautionary measure, but I have never exceeded 2000 units, while I have heard of other physicians here giving 10,000 units and still having trouble. One advantage of the calcium sulphide is that it is indicated in any stage of the disease, whereas the serum is recognized to be worthless after the fourth or fifth day.

I hope, Doctor, I have not exhausted your patience with the long letter but I got so enthusiastic over calcium sulphide that I just had to have an outburst.

JOHN MANSON.

Lincoln, Placer Co., Calif.

[The reason why calcium sulphide does such good work in diphtheria is that it is one of the best antiseptics which we can give internally, while in diphtheria the organism becomes intoxicated or septic more rapidly than in almost any other acute infectious disease. Thus the indication which stands out foremost is fully met.

I congratulate you on your fine results, Doctor. I well remember what a bugbear this terrible disease used to be, and how my heart would sink when called to a case. Now we are no longer afraid of it.

The antitoxic serum fills an important place in our armamentarium, but as you say, it must be given early. Stick to your calcium sulphide, however, Doctor.—ED.]

#### AN EIGHTEEN-POUND BABY

In reply to Dr. Carrington of New York City, who says in your November number there are no seventeen-pound children, I will say, "Off again, Dr. Carrington, and I will go you one and three-fourths pounds better."

Just about eleven years ago I was called in consultation to Mrs. Peter Laur, a midwife, in Spring Valley, Ill., to attend Mrs. Papke, mother of the middle-weight prize fighter. The midwife had been in at-

tendance about thirty-six hours and realized that it was an instrumental case.

The history of the case is very interesting and I should have published it years ago but feared that the medical skeptics, not having like experience, would think me a liar; but now I am older and don't pay any attention to what others think.

History: Fourteen months before the date of Mrs. Papke's confinement I attended Mrs. Jest, her neighbor, and Mrs. Papke acted as nurse.

While waiting Mrs. Papke stated that she would be next, and asked me to examine her; this I did in the presence of Mrs. Jest and found that Mrs. Papke was four months in gestation. This my books show to have been *fourteen months before her delivery*.

Mrs. Laur, the midwife, says that she was engaged to attend Mrs. Papke over a year before, that she saw her every week and knew that the baby had been carried not less than 18 months. Mrs. Jest stated that she had agreed to nurse Mrs. Papke in return for a like favor. She lived one block away, saw Mrs. Papke almost daily, and said Mrs. Papke did not miscarry and that she knew that the patient had carried the baby ever since I had examined her fourteen months before. Mrs. Papke said she had carried the baby all the time since I examined her at Mrs. Jest's, fourteen months before, and "you told me that I was four months' along then." Mr. Papke said the women had told the truth.

Delivery: As the head had been presenting for many hours I applied the short forceps and delivered down to the ears, and then got stuck; it required nearly an hour to extend the chin and deliver the face. As soon as the face was born the child opened its eyes and cried. Of course I made pressure on the perineum so that it could breathe.

I made strong traction on the head many times and could not deliver. I took away the chloroform and had the mother exert herself while I made traction. I made attempts to use the shoulder-hook many times, but every time I did so the child became

asphyxiated. Finally, after two hours' failure, I determined to hook a shoulder and bring it down if there was a shoulder. I at last succeeded in bringing down a shoulder, which caused the child to stop breathing. I as rapidly as I could hooked the other shoulder, and as I pulled it down I felt the child struggle and it died while the chest and second shoulder were coming through. It was not all over yet. I was obliged to wrap a roller towel around the child and use all my strength to deliver the hips, which were stuck.

Now, Dr. Carrington, I am aware that it upsets the decisions of the courts and sounds "fishy," but if you are in doubt write to any of the Papkes—Ed., Bill, the fighter, or to Mrs. Papke, at Spring Valley, Illinois. The child was 27 1-2 inches tall, 17 1-2 inches around the waist, 10 1-2 inches across the shoulders and it *did weigh* 18 3-4 pounds, *nude*; and was a female. My scales were tested and found to be correct. My daughter, aged eight months at the time, measured and weighed the same. There are larger children that have lived and have been reported upon, one I believe in the state of New York, the other in Mississippi or Louisiana, that weighed nineteen pounds, and lived. I believe they were reported in *The Medical World* about seven or eight years ago, or in *The New York Medical Journal*. When you absorb that I will write you again.

M. H. EVANS.

Joplin, Mo.

[While the recorded weight of your baby, although highly unusual, has been surpassed, inasmuch as according to Dr. Edward P. Davis ("A Treatise of Obstetrics," second edition, 1904, page 679) "children have been born weighing as much as twenty-two pounds," the duration of gestation in your patient, if correct, is longer than any that we can find recorded. Dr. Davis gives three hundred days as the longest period of pregnancy, and this is the time-limit established by the French law for legitimacy of the offspring, that is, a baby born, say, over three hundred days after the death of the

husband of the mother is not considered legitimate.

All the textbooks on obstetrics which we have consulted give the same time-limit. Dr. J. Clifton Edgar ("The Practice of Obstetrics," 1906, page 145), who writes on this subject at greater length than any other American author (except possibly Lusk), cites a number of cases of protracted gestation, from literature in which 317 days was the longest period observed, and "this limit of 317 days is, according to most medical authorities on the subject, an extreme one." If we accept the same authority regarding what is called "missed labor" (*ibid.*, page 369) we cannot call your case such, because in missed labor the fetus always dies, and your baby was alive when the head was delivered.

Witthaus and Becker ("Medical Jurisprudence," second edition, Vol. 2, page 514 seq.) likewise cite a considerable number of similar cases. The longest periods of gestation which we can find cited were reported as follows: Schlichting (*Arch. f. Gyn.*, xvi; 1880; page 203); case of pregnancy which lasted 334 days. Jaffé (*Centralbl. f. Gyn.* xiv; 1890; page 74); multipara, aged 31. Labor occurred 365 days after last menstruation. Jefferis (*Trans. Med. Soc. Pa., Phila.*; 1879, xii; page 759); a case of prolonged gestation; 358 days from the cessation of the menses to the delivery of the child. And many others.

Now, Doctor, I write a rather long comment on your case, because the case is itself an unusual one. But you will readily understand that it is not yet fully established (at least not so that a jury of physicians would admit its validity) without further information. At the same time, if the case can be proved, it would be well to do so, because of its extreme nature. You would have to establish, among other points, when the mother, Mrs. Papke, menstruated last; whether she felt life at the usual time, which would be about two weeks after you had first examined her; whether she had felt any labor-pains at term, which then disappeared; if possible, how frequently during that particular pregnancy she had sexual

intercourse. Her age, and the number of children born before that pregnancy would be of interest, as also the period of gestation in the preceding and later pregnancies. Then you would have to find out any other facts which may possibly have a bearing on the elucidation of the case. If you care to take all this trouble (and I wish you would) we shall be very glad to do all in our power to assist you to report the case to an obstetrical society or journal, where it properly belongs.—ED.]

#### HONORS TO DR. TALBOT

We have just learned that Dr. Eugene S. Talbot, the well-known dentist-physician and authority on the problem of degeneracy, has been elected to corresponding membership in the Budapest Royal Society of Physicians, the oldest scientific organization of its kind in Hungary. This honor is given as an evidence of the great esteem felt for the doctor by this body because of his well-known scientific work, these feelings being rendered more forcible on account of his activity on the occasion of the meeting of the International Medical Congress at Budapest last fall. We extend our congratulations to Dr. Talbot for this well-earned honor.

#### ALCOHOLIC "BILIOUSNESS": ITS TREATMENT

Out here in Nevada, where alcoholic beverages are consumed to a considerable extent, numerous cases of so-called "biliousness" come to the attention of every practitioner.

In cases of this kind we find our patient, as a rule, with a dirty tongue, foul breath, headaches (sometimes frontal, sometimes occipital), a tendency to and as a rule more or less vertigo. Almost invariably we find the bowels sluggish, often constipated to a considerable degree, and with the general symptoms of autoinfection. Some cases show an abnormal temperature, the thermometer reading one or two degrees above normal. In all such cases there is a

loss of appetite and a general feeling of lassitude.

When such a case presents itself to me, I first administer calomel and podophyllin, of each 0.06 Gram every ten or fifteen minutes until 0.12 Gram (grs. 2) of each have been taken. At the expiration of from two to six hours this is followed by heaping-teaspoonful doses of saline laxative (effervescent magnesium sulphate) at half-hourly intervals until there are one or more copious watery evacuations of the bowels.

Having thus increased the action of the liver and cleaned out the bowel, I then follow with intestinal antiseptic of the three sulphocarbolates, 10-grain doses every two hours for forty-eight hours, and then two or three times a day until such time as the indications are to the contrary. When fever is present, I administer the dosimetric trinity to effect, after first cleaning the bowels, and provided this latter procedure does not bring the temperature to normal, as frequently happens in such cases. If there is a tendency to continued sluggishness of the liver and atony of the bowels, I give  $\frac{1}{2}$  grain each of podophyllin and juglandin before meals and a laxative dose of saline laxative each morning on rising.

It should not be necessary to state that alcohol is withheld in all such cases. If the patient is a habitual drinker and I find him suffering because of its withdrawal, I add to the treatment strychnine nitrate in full doses as may be required. Where such necessity does rise, then, instead of the dosimetric trinity, I employ aconitine alone as a febrifuge.

Numerous cases of this sort have come under my care, and it has been my experience that as soon as the liver is toned up and made to act and the bowels are cleaned out and kept clean, there is an invariable abatement of the symptoms and that within a very short while the patient regains his appetite, loses that "tired feeling," has no headache, and invariably declares that he "feels like a new man." I have never tried emetine in such cases, but believe that a grain dose on retiring would work wonders, by hastening elimination of the toxic ma-

terials. But the method I have employed works well.

GEORGE L. SERVOS.

Fairview, Nev.

#### BACK NUMBER OF CLINICAL MEDICINE WANTED

Can any readers supply us with copies of the July, 1909, number of CLINICAL MEDICINE? Several of our subscribers are very anxious to secure this issue and we, of course, want to accommodate them. If you have an extra copy send it along without waiting to correspond with us, but at the same time drop us a line so we may know from whom it comes. Will you do this, Brother?

#### VERATRINE IN PUERPERAL CONVULSIONS

Feb. 20, 1909. The patient was a young lady, about 18 years old, of neurotic temperament. She had had enuresis from childhood, and was said to have had hysterical fits some two years ago. Otherwise her health was good, although her constitution was weak. The patient was treated, four months ago, for enuresis, which disappeared, under strychnine and atropine, and intestinal antiseptics, within one month.

I was sent for at 5 p. m. with a message that the lady had been in labor since morning. On my arrival, I was told that she had had a fit, which lasted a few seconds only. The nurse in attendance told me that the os was well dilated and the child was low down with head-presentation. The perineum was rather too rigid. An emena had been given and the urine had already been drawn off by the nurse. There was no fever, and the case was progressing fairly. On account of the Parda System I could not examine the patient personally and I was obliged to depend on the nurse's report.

Upon close inquiry, I could make out that the enuresis had returned some two months ago, but it was of a very mild nature. A fresh specimen of urine could not be secured owing to the advanced state

of the labor. I watched the case for an hour but there was no return of convulsions and the labor was progressing fairly. Consequently I attributed the fit to hysteria, and as I had to see another case, I left, leaving my address with the friends of the patient. In about three-fourths of an hour I was called again to see the patient. She was in very severe convulsions, with frothing at the mouth. She was quite unconscious. The fit lasted for about four minutes.

From her condition I could at once make out that it was a case of puerperal convulsions. I prescribed veratrine (1-134 grain) granules at once—one every five minutes till four doses were taken and then every one-half to two hours, according to the urgency of the symptoms. I desired to give a copious enema of warm water, but it was not practicable. In spite of the administration of veratrine, the case grew worse. So I advised an immediate evacuation of the uterus.

As I was very weak at that time, on account of a recent occurrence of a carbuncle in my loins, I sent for a brother practitioner for the purpose. He agreed with me, applied forceps and delivered the case. Upon evacuation of the uterine cavity the lady regained consciousness to a fair degree and the convulsions were much less severe. During the operation her perineum was torn; but it remained unnoticed at the time. The nurse, however, informed us within half an hour that the perineum was torn.

We decided to stitch the rent immediately. I advised the brother practitioner to stitch the rent under chloroform; but he declined and stitched it without the aid of any anesthesia. This painful procedure put the lady again into severe convulsions with frothing at the mouth and unconsciousness. Veratrine, glonoin and gelseminine were left with the nurse. An enema of warm water was ordered to be given. The forceps operation was performed at 11:30 p. m. The stitching was done at about 1:30 a. m. I wished to administer veratrine hypodermically, but unfortunately my syringe had gone out of order and could not be

easily repaired, and I regret to say that I could not procure another one from my brother practitioners. I went home and repaired my syringe.

I was called again in the morning and I found the patient in the same condition. On inquiry how many doses of the medicine had been taken I found, to my surprise, that none had been given. Not only that but the veratrine granules that I had prescribed the previous evening had also not been administered with the exception of only two granules.

I felt the pulse and found it hard and bounding so I dissolved one granule of veratrine in my badly repaired hypodermic syringe and gave an injection. Only half the quantity of the solution could be introduced under the skin of the left arm. Within five minutes I could mark a distinct change. Being encouraged by this result I dissolved two more granules of veratrine and administered the solution hypodermically. Within half an hour the convulsions had almost ceased and the patient could swallow liquid nourishment for the first time; but was still unconscious. I left the case on veratrine, gelseminine, glonoin, with intestinal antiseptic, advising to give small frequent doses of water and to sponge the skin with warm water several times with friction.

In the evening I saw the patient again and I found that she was progressing fairly well. She was still unconscious, but could now swallow medicines and nourishment freely and could understand something. However, the friends thought it better to put the case under the regular allopathic system of treatment and it passed out of my hands. Upon further inquiry I came to know that the patient had developed mania (hysterical?), in which condition she remained for about two months and now she is practically all right.

SHANKER CONOJIE.

Malvan, Dt. Ratnageri, India.

[This case illustrates several things, one of the most important being that if you want to be sure that a thing is well done you must do it yourself. Especially is this true in the



treatment of such a terrible condition as puerperal eclampsia, which often requires every resource of the doctor's mind, as well as an intimate knowledge of the action of his remedies. That man is most certain of results who *personally* administers the drugs required himself, watching their action, increasing or diminishing the doses until the end sought for is reached. I am sure that the next time the Doctor is called to a case of this kind he will trust not at all to the native nurse, unless he *knows* that he has one that can be trusted—absolutely.

A worn-out, leaky syringe is an abomination! This is an emergency instrument, required nearly every day, and simply *must* be right. Every doctor should have two or three, and all of them should be in perfect working order.

When the veratrine finally did get a chance to show what it could do it proved effective. As our French brethren say, it is a "precious" remedy in the treatment of puerperal convulsions.

Next time, Doctor, tell us what the "Par-da System" is.—ED.]

#### HATPIN SWALLOWED BY A PUPPY

As some of the doctors report curious happenings in their practice, I will also tell of a case that came under my observation a few days ago.

Mr. R. brought to my office, on January 11, 1910, a 3-months old terrier pup, that, he said, had swallowed an ordinary ladies' hatpin. The little fellow seemed to be in great misery, and examination revealed the head of the pin low down in the left flank. Under chloroform anesthesia, after shaving the field of operation, I made an incision in the flank, hooked up the head of the pin, and found it to be in the big gut, it having forced its way through the stomach and small intestine. Incising the gut, I extracted the pin, which measured 8 5-8 inches in length. I sutured the opening in the gut with five silk sutures, closed the peritoneum and skin wound, withheld solid food for forty-eight hours, and the pup made a quick and uneventful recovery.

Now, I am not reporting this because there is anything miraculous about the operation, but because I never heard of anything just like it, and, further, because the dog measured only 10 inches from ears to tail, while the pin was 8 5-8 inches in length. I could not feel the point of the pin in the throat. The pin was a little crooked about 3 inches from the point.

S. D. MOTLEY.

Hollins, Ala.

[Doctor, that was a mighty long pin sticking in a mighty little dog! Even if the patient was a dog, the report nevertheless is interesting. I think, though, I should have put him under the hyoscine-morphine-cactin combination for the operation. Dogs will stand any amount of it safely, so our veterinarian tells me, and you would not run any risk of losing the animal, which was evidently a pet and valuable.—ED.]

#### A NEW TEST FOR BLOOD IN THE URINE

Albarran and Heitz-Boyer (*Gazette Medicale de Paris*, Aug., 1909,) describe a very simple and exceedingly sensitive test for blood in the urine. The reagent required is made up as follows: 2 Grams of phenolphthalein and 20 Grams of potassium hydrate are dissolved in 100 Cc. of boiling water and there is then added 10 Grams of powdered zinc. The color of the solution is at first red, but the color gradually fades out. As soon as it is completely decolorized the fluid is filtered while still boiling.

To carry out the test, two cubic centimeters of urine are shaken up in a test-tube with one cubic centimeter of the reagent and then 3 or 4 drops of a 12-volume hydrogen-peroxide solution are added. In the presence of blood the solution assumes, in the course of a few seconds to two or three minutes, a fuchsin-red color, the intensity of which varies with the proportion of blood present. With this test it is said that blood in the dilution of 1 : 100,000 may be demonstrated.

We have had this test controlled in our laboratory, and it was found to be extremely

delicate. It was also found of value for the detection of blood in fluids other than urine; also in stains. A positive reaction was obtained even if the blood was in putrid solutions, in tissue stains, etc. Our pathologist offers the advice that the reagent be kept in the dark and protected from air.

The importance of the test will readily be evident to the practitioner, especially for the detection of blood in the urine. The method is simple, once the reagent is prepared, and lesions of the kidneys, for which the detection of blood in the urine is of great importance, may thus easily be diagnosed when other methods are not available to the practitioner because too complicated.

#### NEW REMEDY FOR BAD COLDS

Did you ever try aborting and curing a "bad cold," by local applications to the anterior nares? Most doctors have, no doubt, by insufflations of powders or liquids, but I venture to say no one ever thought of tincture of myrrh in this connection.

The anterior nares are probably the birth-place of bad colds of all sorts, for the reason that it is the first sensitive point touched by the germ inhaled. If it effects a lodgment there, it will be heard from within three days through all the symptoms usually following this form of infection, i. e., sneezing, profuse ichorous discharge from the schneiderian membrane, wetting six to twelve big linen handkerchiefs in a day, chilly sensations, muscular rheumatism, and other indications of checked or suspended cutaneous elimination; later sore throat, swollen tonsils, cough, pain in the chest, etc.

From this breeding-ground in the nares the little beasts are drawn down the throat and into the bronchial tubes, from whence they reach the blood. If we catch them before they leave their breeding-grounds, the cold will rarely if ever reach the second stage. Various substances employed for this purpose destroy them, but this will afford only temporary relief—like killing all the flies in a room and leaving the windows and doors open. In order to propagate and multiply, the germs require moisture and

the more profuse the secretion, the more rapidly they multiply.

The logical remedy is something that will form an impervious coating over the birth-chamber and thus cut off their supply of moisture, and the best thing for this purpose, the best because harmless and perfectly effective, is tincture of myrrh. With the feather end of a pen-holder wrapped with absorbent cotton dipped in the tincture (undiluted) swab out the anterior nares, and plug them lightly with dry cotton. Repeat this every hour or so until the living membrane is so completely coated with gum myrrh that it feels as dry as a bone to the patient, and take care to keep it in that condition.

Unless systemic infection has already been effected, your cold will get well of itself. The effect on the anterior membranes seems to be transmitted all along the superior air passages. If infection has passed beyond the first stage, as evidenced by dry skin, increasing urinary secretion, pains and soreness of the muscles, cough, headache, etc., administer the local treatment precisely as if this had not happened, direct the patient to keep the bowels open with small, frequently repeated doses of epsom salt, and administer some of the numerous mixtures for coughs and colds, it does not matter much which, so long as it contains the three following: creosote, terpin hydrate and heroin. These should be pushed once in three hours, in doses large enough to start the emunctory action of the sebaceous follicles of the skin.

You will thus head off many a fatal case of pneumonia, many a miserable case of quinsy, sore throat, tonsillitis, bronchitis, etc. We don't "catch" these things by exposure to wet and cold; but we do catch a "bad cold"—no body ever caught a good one—and the cold prepares the soil for the reception and cultivation of the first one of these germs that reaches it.

T. W. WILLIAMS.

Milwaukee, Wis.

[Dr. Williams suggestions for local medication, to prevent the "spread" of colds, are

certainly as suggestive and should be as useful as they are novel. Candidly I do not like the idea of giving the same internal medication to all—though the remedies suggested are of undoubted value for the disinfection of the respiratory tract, and to relieve excessive irritation. In my opinion it is of primal importance that during the febrile stage the circulatory disturbance be adjusted—and that calls for aconitine supplemented by atropine; while I like some iodine-bearing remedy, since iodine seems to have a specific influence upon the mucous membrane of this portion of the body. However, Dr. Williams suggestions are fine.—Ed.]

### "THE DYING"

The friends of the late lamented Prof. Hermann Nothnagel of Vienna have published a second edition of the lecture he delivered, in 1900, on "Dying" ("*Das Sterben*").\* The pamphlet is embellished with a representation of Nothnagel's monument.

This monument is an unusually profound symbolic piece of art. It represents a large irregular natural rock tending at one end to reach a pyramidal point. The rock is located close to a large stone wall. By the side of the rock stands a full-grown young man wrapped in a flowing sheet down to his feet. His left shoulder and upper arm are covered with a tunic sleeve; the rest of the limb is bare and the hand holds an opening scroll. The right hand holds a laurel wreath which he is laying down on a natural shelving of the rock, and above the shelving on the face of the monument are these words: "*Nur Ein Guter Mensch Kann Ein Guter Arzt Sein*" ("Only a good man can be a good physician").

The pamphlet contains also a fine picture of the noble features of Professor Nothnagel as well as a facsimile of the notes which he wrote a few hours before his death, describing his condition and symptoms.

The book costs only two *kronen*, something less than fifty cents. I read this

lecture with absorbing interest and from it I translate the concluding passages:

"We come to the close. Gathered in a few sentences, founded on what experience and observation have given us, our last words are these: The shuddering ideas which fancy has woven about the physical dying exist for the most part in the imagination only. Really horrible is dying in a few cases only, and the horror is produced by man upon his fellow-man, in death by fire and torture. Nature, however, is mostly more merciful than man, and were she alone, and always, allowed to prevail and were human beings to reach the natural end of their existence, then surely should we think of dying as the weary one thinks of sleep, and we should long for the sweet comforter and restorer.

"Almost always, where nature causes death, she mercifully spreads a veil around her trembling creature, hiding the anguish and horror. Not physical dying is full of torture; full of torture is the soul's death anguish. And this last? A highly revered friend often expressed his wish to be allowed to part from life with full and clear consciousness, and so strong was that wish that he took the binding promise from his old physician (and it was he who related it to me) certainly to disclose to him when according to human insight his end was about to come. The man suffered from calcification of the coronary artery of the heart and the severe paroxysms of pain this entails. During such a paroxysm his physician said to him: 'It is presumably coming near.' Then he called his family together and with them alone, the world being dismissed, he passed a few days more with a cheerful, restful, reconciled soul, peacefully awaiting the end—an exalted example of a clarified humanity.

"To be sure this one was a man to whom Goethe in his youth applied personally the word: 'No one goes away from him without a sense of [having been made better.]' And when the surviving great ideal form of the bygone golden days of Weimar-Jena became a gray old man, of him too the same could be said. 'No one goes away from

\*"Das Sterben." By Hermann Nothnagel. Verlag von Moritz Perles, Vienna.

him without a sense of having been made better.'

"Why does it press me to remember this illustrious one here? Because his dignified example teaches how a wise and good man thinks about death. True it is that but few agonize to reach up to this height of the spirit. 'To but few hearts,' to use a Socratic expression, 'speaks the good daimon so loud that they hear nothing but the sound of his voice and forget dying and death because of it.' But these few are free from the terror proper to dying, namely the soul's death anguish. They are able, like Socrates when the cup with poison was given him to drink, to say: 'Well, then, Kriton! Good Luck! If the Gods would have it thus, then be it so!'"

E. M. EPSTEIN.

Chicago, Ill.

#### PREGNANCY IN OLD AGE

Dr. B. F. Archer of Sweetwater, Texas, says, in a personal communication that he has an interesting case on hand of pregnancy 5 years after the climacteric had been established, and asks us for reports of similar cases. In *CLINICAL MEDICINE* for 1908, page 1074, a case was quoted by Dr. Zwigtman from the *Journal de Medicine de Paris*, No. 26, 1881, in which a woman became pregnant after she was 70. Also, in Genesis, chapter 17, verse 17, there is a report of pregnancy in a woman 90 years old. The literature on the subject is naturally meager, and we shall appreciate reports of cases which are well authenticated. If you know of any, please give the details as accurately as possible, so that they can be used for a little communication on the subject which we are planning to get up.

#### THERAPEUTIC NOTES FROM EUROPE

Ernest Barie of the Laennec Hospital, Paris, counsels the use of silver in colloidal form, such as collargol, electrargol.—*Journal des Practiciens*.

In the impetiginous form of nephritis in infancy, says Hutinel, digitalin is useless.

Rest in bed and laxatives are indicated, to which may be joined hypodermics of oil of camphor.—*Journal des Practiciens*.

Fresh cheese, such as Swiss cheese, may be given to babies soon after weaning, according to Dr. Comby, of Paris. Baked cheeses, because they require mastication, are excellent, according to the same author.

Readers of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* will be interested to hear, from France, that Robin is not the therapeutic nihilist of common type where pneumonia is concerned, but as recently advised in this journal, begins with calomel. Then he gives quinine bichlorhydrate; then the white oxide of antimony and aconite; then tartrate of antimony. Robin compares his mortality in cases of pneumonia with the Paris Hospital records, being as 13 percent to 29 percent in his favor. [If he used the dosimetric method he would reduce his mortality much more. The antimony salts are very depressing and he gives no supportive medication, such as digitalin and strychnine arsenate.—Ed.]

Albert Weil doubts the advices which have emphasized electric introduction of ions of medical agencies into the body. He recites the studies upon salicylic acid, lithium, magnesium and zinc, and denies that their subsequent recovery from the urine means much. The ions may have reached the corium and then been swept directly to the kidneys without medicinally influencing the patient.—*Journal des Practiciens*.

Inhalations of amyl nitrite are indicated in hemoptysis, Pic and Petitjeau say, in the *Lyon Medical*. This is endorsed editorially by the *Journal des Practiciens*. [For the same reason exactly glonoin, followed and supported by atropine, is ideal treatment in hemorrhage.—Ed.]

Diarrhea of intestinal insufficiency as in pancreatic or liver disease requires opotherapy, and Carnot orders extract of bile and pancreatin.—*La Tribune Medicale*.

Marmorek's antituberculous serum acts favorably, Monod reports. The medical cases give 65 percent showing improvement, and surgical cases 72 percent.—*La Tribune Medicale*.

Injections of morphine relieve laryngeal stenosis, according to reports of Sargnon and Rome.—*Journal des Practiciens*.

Pastiles of emetine are recommended by Liegeois. Emetine was first recovered from ipecacuanha in 1817 by Magendie.—*Journal des Practiciens*.

Morphine hydrochloride and the alcoholic extract of aconite root [aconitine better!] are valuable for the bronchorrhea of phthisis, says Liegeois, in *Journal des Practiciens*.

Once the diagnosis of acute syphilitic meningitis is established, push mercury. The coexistence of distinct eruption will point to secondary manifestations. The tertiary variety may be differentiated by its eruptions of localization. After the acute stage passes, chronic meningitis *en plaque* usually continues and this form, acute and chronic, must not be confused with cases of paresis. In the acute stage, cephalorachidian lymphocytosis may transform itself into a polynuclear multiplication. Push iodides.—*Journal des Practiciens*.

Hayem differs from Manquet in preferring the drug ipecacuanha to emetine, although he admits the former is not constant in composition.—*Journal des Practiciens*.

"Each pregnancy costs the mother a tooth," quotes Emile Ely. He advises systematic employment of alkaline mouth washes.—*Journal des Practiciens*.

Brocq prescribes an ointment of calomel, oxide of zinc, lanolin and vaseline to assist in the convalescent stage of facial impetigo.—*Le Progres Medical*.

The endodermal tuberculin reaction is unfavorably considered by Laiguet Lavastine, who says that its diagnostic value is obscured on account of negative results in early pulmonary trouble, and positive results in apparently normal subjects. (I know from autopsy that slight tuberculous foci may exist and undergo spontaneous healing. The tuberculin test may coincide with activity of one of these).—*Journal des Practiciens*.

Tetanus is well treated by endorachidian injections of a solution of sulphate of magnesium (epsom salt). In addition J. Tanton

employs antitetanic serum.—*Le Progres Medical*.

Amyl valerianate in ethereal solution is advised editorially, by *Le Progres Medical*, for the pseudoangina of the thorax in neuropaths.

Aristol, tannin, antipyrin and magnesium salicylate are combined for dressing cancerous ulcers.—*Le Progres Medical*.

Those who see in psoriasis an evidence of hereditary syphilis, according to Sweg, value the use of Donovan-Ferrari solution, iodide of arsenic, in its treatment.—*Le Progres Medical*.

T. H. EVANS.

Freeport, N. Y.

#### WANTED: COPIES OF THE OCTOBER CLINIC

We have completely exhausted our supply of copies of the October, 1909, **CLINICAL MEDICINE**. If any of our readers have copies to spare we shall appreciate it if they will return them to us. We need a few to fill the rapidly incoming flood of new subscriptions, many of which commence with preceding issues.

#### THE DOCTOR AND MIND-HEALING

I notice what you have to say in your review in **CLINICAL MEDICINE** for December (1909, p. 1295). What will you do? All of those writings will do good.

When writing my book, "The Errors of Mind-Healing," the thought entered my mind, "Get out a cheap pamphlet so it will be generally distributed." But on second thought, after reminding myself of the many such pamphlets that had been written, the sermons preached and lectures delivered, without accomplishing much for want of a complete and convenient "Treatise," to which to refer, the idea of a pamphlet seemed not to fill the bill for a permanent work.

While writing the last part of my book a friend tried to discourage me by referring to the McClure exposures, stating that there was no room for any other book now. McClure's magazines, with few exceptions,



were read, laid aside for a few months, and then, like other journals and pamphlets, they were destroyed.

Now, what I mean to say is this: When a great and strenuous effort has been made by one of those among whom the real interest should center, and when he has brought out a work that will not only expose and refute one cult and false teacher but all of them and that in reality is a textbook on the subject in a form that will last for time to come and a work which has the support of our collaborators, the ministers (at least the great majority), it seems that not only the doctors should support it, but more especially the medical journals.

This book, which has been published in 1909, does not only deal with faith-healing, but it points the way to the laity, when in need of medical advice, to consult an honest physician. So far as the cost is concerned I shall be glad to sell the books now to those who wish to distribute them, at the very low price of 60 cents, freight prepaid, in lots of not less than ten. In large lots I shall sell them still cheaper, at least later on. I am preparing to revise and perfect the book, and in a short time it will appear with 20 or 30 pages more and with the addition of a few very interesting points.

What we need is a united front, and if the doctor will lead, the clergy and others will do their part.

R. WILLMAN.

St. Joseph, Mo.

[Dr. Willman is finding out that of all people physicians are least grateful for the efforts of those who fight for the welfare of the profession. It was ever thus, and will so remain until doctors wake up to their own interests, ceasing to be satisfied with the mere drudgery of practice and begin to see the greater importance of their calling and the proper meaning of their title, which is "teacher." Doctors should not only treat and heal the sick, but an even greater part of their duties consists in teaching their clients how to avoid getting sick.

The present craze of chasing all possible fads is merely a phase in the general mental unrest and dissatisfaction. The fads concern

not only matters medical, but also matters religious, and the clergy complain bitterly of the diminished interest in religion shown by the educated.

The remedy? Work and wait. We can only, each one in his sphere, do our duty as much as is in us, and trust to the working of the Good Law that the fermentation and unrest may soon become clarified.

Dr. Willman's little book is a portion of that duty well done. We have already called attention to it and can warmly recommend it to our friends as well as to their patients. For those interested we repeat the reference: "The Errors of Mind-Healing," by R. Willman, M. D. The Advocate Publishing Company, St. Joseph, Mo. Price, one dollar.—Ed.]

#### THE LANCET-CLINIC IN A NEW DRESS

*The Lancet-Clinic* (Cincinnati), which commences its one hundred and third volume with the present year (January 1), does so in a new form, conforming to the uniform style of the other American medical weeklies, "even though the journal in its contents is first of all a nonconformist." As in the past, so for the future *The Lancet-Clinic* "aims to have individuality, to stand for well-recognized principles of medical journalism; and it will express its convictions without fear and favor."

*The Lancet-Clinic* has for years been a welcome visitor to many physicians' desks and will no doubt continue so in the future. We wish our esteemed contemporary every success.

#### THE REWARD OF "TEMPERANCE"

In a recent number of *CLINICAL MEDICINE* I note what one correspondent, under the caption of "Facts and Fads," has to say about the attainment of remarkable longevity in several instances quoted, showing that these old people followed no special rules in their diet but ate whatever appealed to them.

This reminds me of a story related by the late Capt. N. B. P. who, when on a gunning

trip at Thimble Islands with a party of friends one foggy, drizzly day, when shooting was impracticable repaired to an out-building to clean his fowling piece. There he encountered an old sportman 80 years old, likewise cleaning a gun.

He inquired of the old man his age, to which he replied: "You will have to ask pa, he is in the other room."

"Pa" was interviewed on the subject, and on being asked his own age, replied that he was 101 years old.

"Well," responded the Captain, "You must have been a very temperate man to have reached such a good old age."

"O yes," responded the old fellow, "I have always smoked and chewed tobacco and drunk all the New England rum I could get."

GEO. D. STANTON.

Stonington, Conn.

#### GIVES MEDICAL LIBRARY TO STATE UNIVERSITY

A library of over 1,100 volumes on medical subjects has just been given to the school of medicine at the University of Wisconsin by Dr. S. Byron Robinson, professor of gynecology and abdominal surgery at the Illinois Medical School, who was graduated from the University of Wisconsin in 1878.

The addition of this important collection, containing many valuable books on the history and development of medicine and allied subjects during the past 200 years, gives the state university medical school one of the largest libraries of any state institution of its kind in this country.

Dr. Robinson, who is a native of Mineral Point, Wis., after graduating from the university in '78 attended Rush Medical College, from which he received the degree of Doctor of Medicine in 1882. He afterward studied in Heidelberg, Berlin, Vienna, and London.

For the past thirteen years he has been professor of gynecology and abdominal surgery at the Illinois Medical College. He was gynecologist at both the Woman's Hospital and at the Mary Thompson Hospital, and attending surgeon at the Frances Willard Hospital, Chicago.

Dr. Robinson is author of two important books, "Practical Intestinal Surgery," and "Landmarks of Gynecology," both two-volume works, and has also contributed more than 500 articles to the medical journals.

#### VARIOLA OF FETUS

Mrs. W., age 26, of slender build but in good general health, pregnant four and one-half months, developed smallpox on Nov. 20. The eruption was well developed and scattered over the body, affecting the scalp, soles of feet and palms of hands; scaling was completed Dec. 11. While the eruption was pronounced, there was no pitting. The patient was in excellent health during quarantine, but too thorough a house-cleaning and too free a use of antiseptics brought on an indisposition for which she consulted me. She complained of weakness, headache and a burning sensation of the skin of the trunk and arms. There was a fine papular rash on hands, arms, feet and legs, due no doubt to the application of carbolic-acid solutions. Indicated treatment brought immediate relief, but the headache and lassitude persisted, and the patient complained of feeling feverish every day toward evening. Beginning Dec. 15, regular temperature readings were taken and the fever was found to range from 100.5° to 102.5°F., daily, increasing after a few days to 102.5° to 103.5°F. There was a typical tongue and slow pulse, while the bowel condition showed a septic state.

Fetal movements were pronounced and were determined by palpation as well as by the patient's own sensations. These movements ceased on Dec. 25, and labor occurred two days later, ushered in by a sudden hemorrhage with pains. The temperature began to fall by lysis on Dec. 24, reaching 99.4°F. on the day labor set in, and has been two degrees below normal since that date. At the present writing, Jan. 4, the patient feels fine, pulse 72, temperature 97, rather thin in flesh but cheerful and possessing an excellent appetite.

The fetus was a well-developed male, approximately five months, skin dark-red,

and showing beautifully the whitish scars of smallpox eruption. The pocks extended into the true skin and the eruption was well scattered over the whole body and affected the scalp, palms of hands and soles of feet, as had been the case in the mother.

The indisposition, the headache, tongue, pulse, temperature and bowel indications pointed to typhoid fever as strongly as to sepsis from the dead fetus. Against sepsis from fetus stood the fact that the latter was viable until at least twelve days after the temperature began its typhoid range and was approaching the normal when labor occurred. Typhoid fever frequently runs its course in fourteen days under the intestinal antiseptics and clean-out, keep-clean treatment.

R. J. SMITH.

Collinston, Utah.

[Thank you for this interesting and well-reported case, Doctor. While acute exanthemata are frequently communicated to the fetus in utero, concrete examples like the above are always of interest. Your differential diagnosis from a typhoidal condition was very correct.—ED]

#### PUERPERAL ECLAMPSIA SUCCESS- FULLY TREATED

The reports of Dr. Jameson in the June, and those of Sophia Brunson, Dr. Hawkins and Dr. Iles in the September number of CLINICAL MEDICINE, under the above caption, are so *apropos* of our own recent experience, that this seems worthy of report along the line of practical therapy.

December 10, 1909, J. D., colored, age 17, primipara (married), sent to us for assistance in labor. Found the woman in labor, kneeling on the floor, clad but in a night dress, with the thermometer at zero. Time, 10:30 p. m. There was edema of the lower extremities; urine was passed; bowels were constipated; child alive; os uteri dilated to about the size of a silver dollar. She was delivered at 4 a. m. (Dec. 11) of a 6 1-2 pound male child; R. O. A. position; placenta normal; labor natural. Left her

at 5 a. m. with uterus well contracted and retracted, and a pulse of 90.

We were summoned again at 10 a. m. and found her in a severe epileptiform convulsion, of which she had had several before we arrived. Temperature subnormal, pulse full and 110, but there were no apoplectic symptoms. Drew off from the bladder about 2 ounces of urine, which was highly albuminous. Got her to swallow 30 grains of compound jalap powder; gave a hypodermic injection of hyoscine, morphine and cactin; put dry cups to the lumbar region, followed by sinapism to the same spot and to the feet; also administered chloroform by inhalation during the recurring convulsions, which returned about every twenty minutes at first.

In one hour we gave her a hypodermic injection of pilocarpine hydrochloride, gr. 1-8. She was now profoundly unconscious, and the paroxysms occurred less frequently. During the next hour it was necessary to turn her on the side to drain away the profuse salivary and pharyngeal secretions; this left her relaxed, with occasional paroxysms of hysteroid contractures. As she was now relaxed, we gave her an enema of warm table-salt solution, one quart, which was repeated later with 15 grains each of potassium bromide and chloral; both enemata were retained, with the effect of inducing a free flow of urine. There was no recurrence of the convulsions, and the woman remained in a stupor for twenty-four hours.

Dec. 12. The patient's temperature was normal, the pulse 100. She was aroused to take a powder of calomel, rhubarb and podophyllum, as the bowels had not moved; also we prescribed a 5-grain capsule of theobromine salicylate (Merck), three times daily. The albuminuria disappeared. The fourth day, however, some fever from lactation was noted; otherwise, save for some hysterical nervousness, for which we prescribed the bromides and valerian, the woman made an uninterrupted recovery.

After delivery the fact was revealed that for some months previous to the termination of her pregnancy the woman had acted queerly, while the edema had been only

moderate and confined to the lower extremities. We noticed that the convulsive paroxysms were quickly induced by any digital or instrumental manipulations about the anal or vaginal orifices (as in giving the enemata)—a “perverted reflex action of the spinal medulla.”

There never has been shown anything that forces upon us the conviction that there is any intimate connection between the uterus and the kidney. The true puerperal convulsion can occur only when the spinal cord has been acted upon by an excited plexus of uterine nerves. The etiologic factors may act either centrally or eccentrically, in our case the cause being toxic, to wit: uremic. The exciting cause we took to be the acute suppression of the kidney function due to the exposure during labor, when the system is very susceptible to extremes of temperature. We have had a similar experience with another negro woman in labor who had ignorantly exposed her person to the low winter temperature and in whom lobar pneumonia complicated the puerperium.

As factors in the etiology of puerperal eclampsia we generally have found, in our cases, albuminuria and acute renal suppression; this, however, does not negative the fact that these convulsions may occur in nonalbuminuric women.

To treat successfully such a case is a cause for congratulation, as one-fourth of the cases are said to result fatally. Primiparae are most frequently the subjects. The attack may come on before, during or after labor. Eclampsia occurring before labor is more dangerous than when it follows. Coma after the first convulsion is a grave omen. After the paroxysm stupor is the rule, but some women are rational and convalescent, evidencing no marked symptoms until the attack is repeated. In our case marked restlessness was a sure prodrome of the recurrence.

The spasms were so well controlled after the sedative and relaxing action of hyoscine-morphine, in addition to the sialagog depletion and the diuretic effect of the saline enemata, that the emergency seemed to be

fully met, so that the veratrine treatment was not administered, although it was considered. The alkaloidal therapists warn us to be careful of morphine in full doses in this condition, but in the hyoscine, morphine and cactin combination we have never feared to give it to the full effect. With Dr. Iles we can say, “give dose enough,” after you know your alkaloids, and you will never sink into the rut of uncertainty or fall down upon the path of expectancy. *Qui docet discit.*

PENNEBAKER AND TRIPP.

Harrodsburg, Ky.

### THE OXYGEN BATH

Under the above caption we have described, after an article in *The Practitioner* for September, 1909, an adaptation of Sarason's ozet bath. In a personal communication, the makers of the material used for making up the bath call attention to the fact that the catalyzer in the perogen bath is not manganese borate, as in the German ozet bath. This salt causes a disagreeable black discoloration of the water, tub and towels, a drawback from which the perogen bath is free.

We gladly insert this correction of a mistake unwittingly made.

### HEART TROUBLE OR INDIGESTION, WHICH?

“Doctor, I’m sure I have heart-trouble. There is so much distress here,” placing her hand over the precordium, “and my heart palpitates so. I am sure I eat enough, but the food is not relished. I have such awful dizzy-spells and sometimes almost suffocate. I’m sure it’s my heart, Doctor.”

The doctor is not so sure. He listens to all the woman says, retaining well in mind the symptoms described. Examination shows a good heart working against fearful odds. “When does your trouble come on?” he asks. “Oh, when I’m tired, usually at night, after a hearty meal.”

The physician has listened with marked attention and courtesy, but he has his own

opinion. He proceeds to his inner office and puts up some appropriate digestant, together with calomel and anticonstipation granules, and a laxative saline. These he gives to the lady and politely bows her out.

After two days or so this woman meets a friend, and the latter asks incidentally, "Do

realize the importance of "indigestion" as a causative agent for "heart trouble."—ED.]

#### LEPER CASES FROM THE PHILIPPINES

You recently published some leper pictures taken in the Molokai (Hawaii) Settlement. I am mailing you a couple taken by a photographer in my employ in the Philippine Islands, at Manila, shortly after the occupation of that city by the American soldiers in the fall of 1898. A few silver coins judiciously administered enabled me to review the entire colony of lepers in the hospital and group the worst types for pictures. You will note the picture of myself, standing in the rear of the leper group.

There were many more victims equally as bad as shown in these pictures, but I could not crowd them into a photo although I had some lie on the floor and expose either hands or feet, show-



A group of Philippine lepers

you know about Doctor Blank; is he a good doctor?"

"Good? Yes, indeed, he is. I consider Doctor Blank one of the leading lights of his profession. Why, he cured me of a *serious heart trouble*, and I had to go to his office only once! Good? He's the best man in this country. He knows his business."

F. A. PITKIN.

Palmyra, N. Y.

['Tis an oft-told tale, well re-told, Doctor. And, yet, many a young medico will need many a sad experience before he comes to

ing loss of fingers and toes.

WALTER MILROY BECK.

Hanley Falls, Minn.

#### MALARIAL HEMATURIA

By experience, I have learned to differentiate two forms of malarial hematuria.

One runs a mild course of two or three days, always tending to recovery; in fact, this form will usually get well "In spite of the treatment."

The other form is pernicious, rapid in its onslaught, terrible in its results, and will invariably prove fatal unless controlled in



from twenty-four to forty-eight hours from the onset.

The milder type I have treated with solutions of epsom salt, giving sponge baths every hour or so, as hot as can be borne. With this I usually give epsom salt internally every hour, alternating with a full glass of hot normal salt solution every hour, together with enemas of the same.

Usually one hypodermic of morphine hydrobromide, gr. 1-6; atropine valerianate, gr. 1-250, and strychnine arsenate, gr. 1-67, will control the vomiting, and small doses of quinine bisulphate, leptandrin, and capsicum, every three and one-half hours for forty-eight hours, will prevent a recurrence. Of course this should be followed with tonics to fit each case for at least thirty days.

It is not so simple to treat the pernicious form. Usually the patient is seized with the classical chill, followed by persistent vomiting and retching, intense jaundice and port-wine urine. There is also either extreme restlessness, flushed face, high fever with bounding pulse, etc., or cold, clammy, sticky skin, dilated or pinhead pupils more or less irresponsive to light, weak thready or intermittent pulse and a very high fever, although I have seen one case that showed a subnormal temperature for two hours.

The successful treatment of this disease should be based on the pathology of the condition, as well as upon the character of the symptoms as they arise. Personally, I believe the intense jaundice and port wine urine to be both due to disintegration of the

blood cells and to the selective deposition of the two prominent coloring matters therein contained, in the skin in the first place, and in the urine in the second. I do not believe that we have in any instance a jaundice *per se* from the liver, nor hemorrhage from a congested kidney; neither organ is disturbed



Another group of lepers. Dr. Beck in the rear

to a greater degree in this disease than is usual in any malarial condition. Be that as it may, I have not the space here to discuss it pro or con, but will mention it in passing in order to explain my reasons for the treatment I use. Having to treat such a case as I have just described, I go to work for the time for folded hands has passed.

I first prepare a hypodermic of morphine hydrobromide, gr. 1-8; gelseminine, gr. 1-50, provided I have excitement, flushed face, bounding pulse, etc. If the other type described prevails, that is cold, clammy skin, etc., I substitute atropine valerianate, gr. 1-50, for the gelseminine and add cactin, gr. 1-67 to the combination. After giving this, I prepare quinine and urea hydrochloride, 5 grains, and give this hypodermically in the opposite arm. In either kind of case, I then sponge the pa-

tient all over for at least twenty minutes or half an hour with epsom-salt solution, two ounces to one pint as hot as can be borne, and repeat as long as fever is high, every hour or two hours. By this time the first hypodermic has quieted the stomach and I begin to administer as large doses of the calomel, podophyllin and bilein tablets, as I think the patient can stand, usually one tablet every two hours. With each dose, I give a tablet of intestinal antiseptics dissolved in hot water.

With the intensely congested type of disease, however, I do not depend on this slowly acting purgative, but give at once one-half minim of croton oil in glycerin on the back of the tongue and repeat at half hourly intervals until I obtain results. I follow the calomel, podophyllin and bilein compound, after it begins to act, with epsom salt, and do not stop at one dose, but keep it up in small doses hourly, alternating with normal salt solution, one glassful, *hot*, until I am sure that bowels and kidneys are both acting well. I use this practically as a routine measure with all cases.

Hypodermic injections of quinine and urea hyperchloride I repeat in uniform doses hourly until 20 grains have been given, and then every three and one-half hours until the urine clears, which it usually does in from twenty-four to forty-eight hours. If the needle be sterilized and the site of puncture be rubbed well with alcohol before and after each injection of quinine, no abscess need be feared. The hypodermics of morphine hydrobromide with either gelseminine or atropine valerianate and cactin, I also repeat hourly or until in the first instance my patient is quiet and shows the effect of both drugs, or in the latter instance until he reacts from the profound shock; and then I give enough to maintain the effect gained.

The large, classical "knock-down-and-drag out" doses of calomel and quinine sulphate poured into these cases of old—and for that matter by some practitioners still living—are not only uncalled for, but actually harmful. No real hematuric patient can retain a dose of quinine sulphate in his stomach long

enough for it to be absorbed, so that it only serves to irritate further an already irritated mucosa. Small doses of calomel, podophyllin, bilein and strychnine arsenate followed by epsom salt or saline laxative unload the liver quite as effectively as do the massive doses of calomel without the same risk.

In passing, I wish to speak of the virtues of saline laxative in these cases. If swallowed rapidly, while it effervesces, the carbonic-acid gas seems to soothe the mucosa in a wonderful way. Of course in these cases I give the sulphocarbolates—always in solution as hot as can be swallowed and with a lot of water. Like Dr. F. E. Wood of Mexico, I always give my sulphocarbolates along with the purgative and I believe I get better results. I think the doctor deserves our thanks for bringing this fact before the "CLINIC family." I have used his method many times, in many cases, and always with good results. As in all other conditions, I always satisfy myself that the bowels are indeed cleaned out and I give the epsom salt once or twice a day—sometimes a dose of castor oil also for a week after the urine clears. As a precaution against relapse, as soon as the stomach is normal I give a capsule containing quinine bisulphate, 3 grains leptandrin, one grain; capsicum, one grain, every four hours, night and day for two weeks. If my patient is very weak, I added hydrastin, 1-2 grain, and strychnine arsenate, gr. 1-134, to the above capsule. At the end of two weeks, I drop this, with the exception of one capsule at bed-time, and give triple arsenates with nuclein after meals for at least thirty days.

As to diet, I confine it to buttermilk, corn bread, grape juice, hot lemonade, rice water and any real good gruel or soup. This method has been uniformly successful with me in this disease.

I forgot to mention that failing to control the fever satisfactorily with the hot baths I give small doses of acetanilid with veratrine, gr. 1-134, every hour, always with a drink of real hot water.

W. P. BARRON.

Carmona, Tex.

# Esperanto for Physicians

## THE VERB

We are now in a position to give a complete paradigm of an Esperanto verb, which will serve for all verbs, there being *no irregular verbs in Esperanto*, not even the verb *esti*, "to be," which is irregular in practically all other languages.

### FRAPI, TO STRIKE

#### ACTIVE VOICE

##### Present

|  |                                 |
|--|---------------------------------|
| <i>Mi frapas</i> , I strike  | <i>Ni frapas</i> , we strike    |
| <i>Ci</i> * (or <i>vi</i> ) <i>frapas</i> , thou strikest                | <i>Vi frapas</i> , you strike   |
| <i>Li, ŝi, ĝi</i> , or <i>oni frapas</i> , he, she, it, or "one" strikes | <i>Ili frapas</i> , they strike |

[\*Note. *Ci*, thou, is rarely used, except in countries where "thou" is commonly used to mark intimacy, affection, or social inferiority.]

##### Past

|  |                                 |
|--|---------------------------------|
| <i>Mi frapis</i> , I struck  | <i>Ni frapis</i> , we struck    |
| <i>Ci</i> (or <i>vi</i> ) <i>frapis</i> , thou struckest               | <i>Vi frapis</i> , you struck   |
| <i>Li, ŝi, ĝi</i> , or <i>oni frapis</i> , he, she, it or "one" struck | <i>Ili frapis</i> , they struck |

##### Future

|  |                                      |
|--|--------------------------------------|
| <i>Mi frapos</i> , I shall strike  | <i>Ni frapos</i> , we shall strike   |
| <i>Ci</i> (or <i>vi</i> ) <i>frapos</i> , thou wilt strike                   | <i>Vi frapos</i> , you will strike   |
| <i>Li, ŝi, ĝi</i> , or <i>oni frapos</i> , he, she, it, or "one" will strike | <i>Ili frapos</i> , they will strike |

##### Conditional

|   |   |
|---|---|
| ( <i>Se</i> ) <i>mi frapus</i> , (if) I had struck or should strike   | ( <i>Se</i> ) <i>ni frapus</i> , (if) we had struck or should strike    |
| ( <i>Se</i> ) <i>ci</i> (or <i>vi</i> ) <i>frapus</i> , (if) thou hadst struck or shouldst strike               | ( <i>Se</i> ) <i>vi frapus</i> , (if) you had struck or should strike   |
| ( <i>Se</i> ) <i>li, ŝi, ĝi</i> , or <i>oni frapus</i> , (if) he, she, it, or "one" had struck or should strike | ( <i>Se</i> ) <i>ili frapus</i> , (if) they had struck or should strike |

##### Imperative

|   |  |
|---|--|
| <i>Mi frapu</i> , let me strike   | <i>Ni frapu</i> , let us strike          |
| <i>Ci</i> (or <i>vi</i> ) <i>frapu</i> , strike thou                        | ( <i>Vi</i> ) <i>frapu</i> , strike (ye) |
| <i>Li, ŝi, ĝi</i> , or <i>oni frapu</i> , let him, her, it, or "one" strike | <i>Ili frapu</i> , let them strike       |

The nice use of the conditional is somewhat hard for many English students, owing to the English custom of mixing up the conditional with the subjunctive and indicative forms. There is always a "but" in the conditional proper; thus: "If I had trephined immediately [but I did not] still he would not have recovered." *Se mi estus krani-borinta tuj, tamen li ne estus resaniĝinta.* "If he should be [or were] appointed surgeon in chief [but it is uncertain whether he will

be] he would make an energetic head.' *Se li estus difinita por ĉefĥirurgiisto, li farus energian estron.*

But in such a statement as this: "If we cut open the heart we find that it has four chambers and four sets of valves," there is no condition or supposition implied, no antithesis suggested. The statement is equivalent to the statement of fact: "When we cut open the heart we do in fact find that it possesses, etc." Consequently in Esper-

anto, as in English, the indicative is used: *Se ni distranĉas la koron ni trovas, ke ĝi posedas kvar kamerojn kaj kvar valvarojn* (*valvo*, a valve; *aro*, a set, or collection).

In like manner, there is no condition implied in the phrase, "If I ask the obstetrician to make haste he will start immediately." *Se mi petos al la akuŝisto, ke li rapidiĝu, li tuj ekiros.*

The conditional is used, however, in Esperanto, as in other languages, to soften a request and render it less seemingly imperative. Thus, "Would you do that for

me?" *Cu vi volus fari tion por mi?*

After verbs of wishing, ordering, directing, etc., either the infinitive or *ke*, that, followed by the imperative, may be used: e. g., "I told him to do that." *Mi diris al li fari tion*; or *mi diris al li ke li faru tion*. (I told him that he do that.) "I wish her to do as I tell her (that which I tell her): *mi deziras ke ŝi faru tion kion mi diras al ŝi*. [Note, however, "I wish she would do as I tell her (which she does not)." Here the conditional is used, *Mi volas ke ŝi farus tion kion mi diras al ŝi*.]

#### Participles

##### ACTIVE

Present: *ŝrapanta*, striking  
Past: *ŝrapinta*, having struck  
Future: *ŝraponta*, being about to strike

##### PASSIVE

*ŝrapata*, being struck  
*ŝrapita*, having been struck  
*ŝrapota*, being about to be struck

#### COMPOUND TENSES

From the active participles the compound tenses are formed by the aid of the auxiliary verb, *esti*, to be. *Havi*, to have, is never used.

##### Present

|                           |   |                                  |   |  |
|---------------------------|---|----------------------------------|---|--|
| <i>Mi</i>                 | } | <i>estas</i><br>am, is, art, are | { | <i>ŝrapanta</i> , striking                           |
| <i>Ci</i> (or <i>vi</i> ) |   |                                  |   | <i>ŝrapinta</i> , having struck (i. e., have struck) |
| <i>Li, ŝi, ĝi, or oni</i> |   |                                  |   | <i>ŝraponta</i> , about to strike                    |
| <i>Ni</i>                 |   |                                  |   |  |
| <i>Vi</i>                 |   |                                  |   |  |
| <i>Ili</i>                |   |                                  |   |  |

##### Past

|                           |   |                                 |   |   |
|---------------------------|---|---------------------------------|---|---|
| <i>Mi</i>                 | } | <i>estis</i><br>was, wert, were | { | <i>ŝrapanta</i> , striking                          |
| <i>Ci</i> (or <i>vi</i> ) |   |                                 |   | <i>ŝrapinta</i> , having struck (i. e., had struck) |
| <i>Li, ŝi, ĝi, or oni</i> |   |                                 |   | <i>ŝraponta</i> , about to strike                   |
| <i>Ni</i>                 |   |                                 |   |   |
| <i>Vi</i>                 |   |                                 |   |   |
| <i>Ili</i>                |   |                                 |   |   |

##### Future

|                           |   |  |   |   |
|---------------------------|---|--|---|---|
| <i>Mi</i>                 | } | <i>estos</i><br>shall, shalt, will or<br>wilt be | { | <i>ŝrapanta</i> , striking                                |
| <i>Ci</i> (or <i>vi</i> ) |   |  |   | <i>ŝrapinta</i> , having struck (i. e. shall have struck) |
| <i>Li, ŝi, ĝi, or oni</i> |   |  |   | <i>ŝraponta</i> , about to strike                         |
| <i>Ni</i>                 |   |  |   |   |
| <i>Vi</i>                 |   |  |   |   |
| <i>Ili</i>                |   |  |   |   |

##### Conditional

|                           |   |   |   |                                   |
|---------------------------|---|---|---|-----------------------------------|
| <i>Mi</i>                 | } | <i>estus</i><br>should or shouldst be<br>or have been | { | <i>ŝrapanta</i> , striking        |
| <i>Ci</i> (or <i>vi</i> ) |   |   |   | <i>ŝrapinta</i> , having struck   |
| <i>Li, ŝi, ĝi, or oni</i> |   |   |   | <i>ŝraponta</i> , about to strike |
| <i>Ni</i>                 |   |   |   |                                   |
| <i>Vi</i>                 |   |   |   |                                   |
| <i>Ili</i>                |   |   |   |                                   |



## CLINICAL · MEDICINE POST-GRADUATE SCHOOL *of* THERAPEUTICS

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### PART III.—LESSON SIX

#### PNEUMONIA

##### INTRODUCTION

This disease has been recognized since the time of Hippocrates, who described it very accurately, especially the recovery by crisis occurring on an uneven day.

The frequency and the fatality of pneumonia place it in the front rank of the infectious diseases prevailing in the temperate climates. It has of recent years displaced tuberculosis in this regard, and the late Dr. Frank W. Reilly, for many years Assistant Commissioner of the Department of Health of Chicago, always referred to it as "the new captain of the men of death." This disease is no respecter of person, age or sex. Fifty percent of all cases occur between the ages of twenty and forty. We find it in the newborn; from then its frequency gradually increases up to the sixth year, then there is a slight decrease to the fifteen-year period, then a gradual increase again. Eighty percent of all cases occur between the ages of ten and fifty, and 80 percent of cases occur among males, probably owing to their greater exposure. Before the age of fifteen pneumonia is usually secondary to another infection. Many cases occurring before the second year of life and diagnosed as

pneumonia are really influenza. It is much more frequent in cities than in rural districts.

**The Cause of Pneumonia.**—The pneumococcus, or diplococcus pneumoniae was proven definitely to be the cause of pneumonia by Fraenkel, 1884, and was so confirmed by Weichselbaum, 1886, although the organism had been primarily discovered by Pasteur in 1880, and a little later by Sternberg, who had injected rabbits with saliva from pneumonia patients, producing a septicemia in these animals. This organism is a diplococcus, surrounded by a capsule. It grows well on ordinary media, the colonies resembling those of streptococci, of which it is considered by many to be a variety. It stains well with ordinary dyes and is gram-positive. It is found in dust, in saliva, and in from 30 to 50 percent of normal throats.

The pneumococcus is found in 98 percent of all cases of lobar pneumonia. It is the only organism present in about 18 percent. Two percent are due to the pneumobacillus of Friedlaender. In 60 percent of the cases staphylococci are associated with pneumococci. In 26 percent streptococci and pneumococci are found. In one percent of



the cases staphylococci and streptococci alone are present.

The pneumococci have less resistance to drying and other adverse conditions than tubercle bacilli, but they are also able to live in the normal, healthy mouth and tubercle bacilli are not. They remain alive in dry sputum under certain conditions as long as fifty-five days, but in ordinary dust and in the fine droplets expelled by coughing their life is sustained only a few hours.

**Individual Susceptibility.**—In this disease, the susceptibility and the resistance of the individual plays a greater role than in any other of the infectious diseases. The pneumococci found in normal throats have a virulence that is equaled by the resistance of the patient. If anything should reduce this resistance, they may produce a mild local infection such as tonsillitis, with or without a pseudomembrane, or they may produce a peritonsillar abscess, or they may invade the interstitial tissue of the lung by way of the bronchi, producing lobular pneumonia; again, they may invade the blood, producing lobar pneumonia or merely septicemia without pneumonia.

It is also possible that pneumococci from a case of pneumonia, possessing a high degree of virulence, may produce the disease in a susceptible individual, or even pneumococci from the normal throat of an individual possessing a high resistance may have sufficient virulence to produce the disease in some less resistant person.

**Predisposing Causes.**—The predisposing causes are loss of resistance, produced by factors such as traumatism, sudden, severe exposure, alcohol, or other chronic diseases, diabetes, influenza, etc. The disease is very frequent in persons of seeming fair health but whose resistance has been lessened by a weak heart, crippled kidneys, cirrhotic liver or by general arteriosclerosis.

**Prevalence.**—The disease is especially frequent in the middle Atlantic coast states, least in the Gulf and South Atlantic coast states. It is more frequent in the city (and seems to be increasing) than in the country, where it seems to be decreasing. In the United States, during the census year of

1900, 105,971 deaths from pneumonia occurred. This is 106.1 per thousand deaths from all cases.

The incubation period varies from a few hours to a day, rarely longer.

**Climatic Influences.**—J. M. Anders, in *American Medicine*, September 3, 1904, gives the results of ten years' observation as to the effect of meteorological conditions, as follows: Season has a marked effect, especially winter and spring. With a low temperature there is a high death-rate. The death-rate also increases with the barometric pressure, which is inversely as the temperature and therefore governed by it. The wind velocity also has a marked influence upon the barometric pressure and upon the temperature, and therefore upon the disease. A low temperature, with a high pressure and high wind-velocity, are accompanied constantly and uniformly with an increased mortality from pneumonia. The above conditions probably act indirectly and merely represent the "shut-in" season, lack of ventilation having a great deal to do with the prevalence of the disease.

**Pneumonia Is Not a Local Disease;** it is really a septicemia. Rosenau (*Journal of Infectious Diseases*, 1904, Vol. 1, page 280), found pneumococci in the blood in 132 out of 145 cases examined. The apparent localization of the disease in the lungs is probably due to the greater volume of blood and therefore a greater number of pneumococci. The exudate in the alveoli is due to the direct action of the pneumococcus. The pneumococci, according to Wolff (*Journal of Infectious Diseases*, May, 1906) persist in the blood for days after the crisis has passed and are then just as virulent as during the fever.

**Complications.**—The pneumococci are themselves the cause of most of the complications, such as pleuritis, peri- and endocarditis, peritonitis, otitis, meningitis and arthritis. Raw (*British Medical Journal*, December 21, 1901), states that arthritis occurs in one percent of all cases, and frequently appears before other symptoms; usually one of the joints on the same side as the lung involved was affected, the order

of frequency being the knee, shoulder and ankle. It is important to note that these cases were more common and more severe in alcoholics, and were usually of a purulent character, therefore requiring aspiration. Meningitis and mastoiditis are frequent complications and usually appear about the second day. Enteritis and conjunctivitis, in common with other localized serous or mucous-membrane infections due to pneumococci, usually tend to recover. If the patient's general resistance is good, there results a local infection; with a lessened resistance, general septicemia occurs.

#### **Specific Immunity to Pneumonia.**

Some immunity is always produced, but it is usually of a transient character. Recurrences are the rule in from thirteen to thirty-three percent of the cases, showing that some acquire, as in influenza, a predisposition to the disease. As yet there is no theoretical or practical basis for a serum therapy, and none of the many serums so far prepared are of any practical value. Talmon (*La Medicine Moderne*, March 26 and April 2, 1902), reports 100 cases treated with diphtheria antitoxin, the mortality being only fourteen percent. He claims good results in cases over fifty years of age. The action of the diphtheria antitoxin was probably a stimulation of phagocytosis. In this connection Salisbury (*Practical Medicine Series*, October, 1903, page 115), says: "Inasmuch as leukocytosis precedes resolution and is evidently necessary to that process, efforts to arouse leukocytosis are rational. The use of nuclein and of the salicylates and a form of diet containing nuclein, or such as would excite leukocytosis, has its justification on this ground."

#### **The Cause of Death in Pneumonia.**

Death is due to one of two general causes, either the toxic effect produced upon the heart, brain or vasomotor nerves; pulmonary edema, resulting in respiratory failure; or complications such as meningitis, etc., Ransdell (*American Medicine*, Feb. 11, 1905) says: "The death-rate from pneumonia in pregnant women is much higher than ordinarily. About fifty percent abort and among them the mortality is higher than

among others. The abortion is unquestionably due to the increased amount of CO<sub>2</sub> in the blood."

**Prophylaxis** in this disease is the same as in influenza. See *AMERICAN JOURNAL OF CLINICAL MEDICINE*, of February, 1910, page 228.

The sputum in all cases should be destroyed before drying, by means of a 5 percent solution of carbolic acid, lysol, kreolin or trikresol. Bichloride solution coagulates the sputum but does not disinfect it.

**Urine.**—The urine in pneumonia shows the general characteristics of a fever urine, being small in amount, of high specific gravity, viz. 1.030 to 1.040, practically always highly colored, with an increased amount of urea. If the urea diminishes after the third day, we may expect delayed convalescence, diarrheal attacks, pleurisy with effusion, empyema, etc. Immediately after the crisis the amount of urea is increased about threefold. The chlorides are usually absent, especially from the third to the fifth day. Such a retention of chlorides also occurs in sepsis, typhoid fever and in cardiac incompetency. Their reappearance is due to the absorption of the exudate and always occurs before the temperature falls, indicating the beginning of convalescence. Albumin is present in about fifty percent of the cases during the fever and practically always during resolution. Hyaline and granular casts are the rule. Renal cells and red blood-corpuscles are frequently found, although nephritis occurs only in from one or two percent. The diazo reaction occurs in about twenty percent of all cases. A trace of bile may appear, and frequently acetone. Uric acid is always increased from the destruction of nucleoproteids. Uremia, however, is very rare.

**Blood.**—The blood shows a characteristic inflammatory leukocytosis, neutrophilic in type. It coagulates very rapidly, owing to an increased fibrin content. The red blood corpuscles are always absolutely diminished, but this anemia may not be apparent and we may have more than the normal number of red blood corpuscles in the peripheral blood, from cyanosis. After

the crisis the number of red blood-corpuscles and the percentage of hemoglobin fall. Nucleated red blood-corpuscles are rare, occurring in not more than two percent of the cases. They indicate a severe infection or a low resistance.

The blood plaques are decreased during the fever but they increase rapidly after the crisis.

The leukocytosis usually precedes the chill, and if it occurs at all, is manifest within six hours thereafter. In mild cases the average number of leukocytes is 6,000 to 12,000; in severe cases, 20,000 to 36,000, or even 100,000. It is greater in children. There is an absolute increase in the number of neutrophils, usually being over ninety percent of the total number of white blood cells. There is a corresponding reduction in the number of leukocytes to two or four percent.

The number of leukocytes usually returns to normal within forty-eight hours after the crisis occurs. This fall, however, is gradual and usually begins before the crisis. In complications, as for instance in empyema, gangrene, abscesses, etc., the leukocytosis continues. Usually a pseudo-crisis has no effect upon the white blood cells. After the crisis we usually have an eosinophilia, and if this occurs before the crisis, it is a favorable sign. A leukocytosis persisting after the crisis indicates a relapse or a complication. In children we may have a lymphocytosis instead of a neutrophilia, resembling in some respects leukemia. If leukocytosis with neutrophilia is present, typhus, typhoid, malaria, acute tuberculosis, influenza and the catarrhal pneumonia of influenza may be excluded from the diagnosis. The absence of a neutrophilic leukocytosis is an unfavorable prognostic sign, although its presence does not necessarily mean that the patient will recover. Some mild cases, with good resistance, may show only a slight neutrophilia without any increase in the number of leukocytes.

Most cases of pneumonia fall into one of three groups as regards the degree of leukocytosis present. A mild infection, with a vigorous reaction, shows a slight leukocy-

toxis. These cases all recover but they are only a small proportion of the total number of cases. A severe or moderate infection, with a marked leukocytosis, may or may not recover, depending upon the ability of the patient to maintain this leukocytosis. This class includes about ninety percent of all cases. A severe infection with a feeble reaction shows no leukocytosis. There is not sufficient resistance on the part of the patient to produce a leukocytosis, and these cases almost invariably terminate with death.

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#### THE TREATMENT OF PNEUMONIA

**Prophylaxis.**—As many of the victims of pneumonia attribute, and rightly so, the onset of their case to an exposure to cold, it is evident that such exposures should be avoided. And this is especially true in those whose bodily resistance is lowered through sickness or through excesses of any kind. More careful attention should be given to the ordinary "colds," as the mucous membrane offers less resistance to the entrance of a pneumonic infection during such attacks. The aged should be watched carefully during their winter cough or during attacks of bronchitis which might be trivial in younger persons.

Plenty of fresh air, especially in sleeping quarters, will do much to minimize the danger of pneumonia.

The sputum of afflicted patients should be burned and in hospitals the patients should be isolated.

**The Sick Room.**—The proper care of the patient's environment is very essential. The room should have a southern exposure, thus admitting plenty of sunlight. There should be many windows which remain open night and day. Fresh air and plenty of it is the main consideration in the treatment of pneumonia; for it is upon the adequate supply of oxygen that the comfort and indeed the life of the patient depends. The temperature of the room should be kept at about 60°F. While fresh air is essential draughts must not be permitted.

There is no question of the usefulness of medicated steam; a small vessel of water in which a few drops of eucalyptol, or oil of pine, or Scotch fir, have been dropped can be kept boiling over an alcohol lamp. The medication must be renewed from time to time. Except in the coldest part of the year I would recommend that the patients be kept out-of-doors. A sheltered porch is desirable. The coldness of the air is not a detriment but a positive help in soothing and at the same time invigorating the patient. Undue draughts in a room may be avoided by tacking cheese cloth across the open windows.

The bed should be firm and smooth, with the sheets pinned down to prevent crumpling. To maintain an even heat within the bed it is a good plan to spread papers beneath the mattress and to keep a hot water bottle at the patient's feet. Light, warm comforts should cover the patient while the clothing should consist of a light flannel night-shirt which opens down the front to facilitate the examination of the chest. All unnecessary furniture should be removed from the room.

As regards the personal hygiene of the patient, the mouth and nose should be cleansed daily with a boric-acid or alkaline antiseptic solution; especially should these parts be cleansed before taking medicine or food. The genitalia should be kept scrupulously clean. Care should be taken in the use of the bed-pan that the patient does not have to strain. Let the visitors be few and the nurse one who is firm and quiet.

**Hydrotherapy.**—In the early stages of the disease when there is severe pain in the chest the use of the hot-water bag or the hot chest-pack is indicated. The dilation of the blood vessels obtained thereby relieves congestion. Some physicians prefer applying a hot kaolin paste in a fairly thick layer over the chest, first applying to the skin of the chest a little guaiacol and camphorated oil in equal parts. In some cases I have preferred this to the chest pack, but not in the majority of cases; if the kaolin paste is applied it should be covered with a layer of cotton or a snugly fitting thin undershirt.

Later, during the height of the fever, cold sponging is soothing to the patient and reduces fever. The sponging should be done daily, even if the temperature be not high, for the purpose of cleansing the emunctories of the skin and of stimulating the removal of toxins in that way.

For reducing the temperature the application of the cold chest pack is one of the surest and most rational methods. The pack can be applied in the following manner: Several thicknesses of soft linen are cut of a size to reach more than around the body and to extend from the clavicles to the umbilicus. A cut is made so that they may fit under the arm at the shoulder, and flaps are made to come from the back over the clavicles. Two pieces of soft flannel are cut of similar size and shape.

Two of the linen cloths are wrung fairly dry from water at a temperature of 50° to 60°F. and applied to the body with one of the flannel cloths on the outside. The flaps are brought over the clavicles and the whole jacket is pinned down the front.

Such a pack may be renewed whenever it becomes warm from the body heat. Some patients may not react well to the cold pack, as evidenced by blueness of the skin and shivering, then the temperature of the water will have to be raised to 70° or 80°F.

Whenever there is intense congestion of the chest with an accompanying cerebral congestion, a hot mustard foot bath will determine the flow of blood to the lower extremities and help to give relief along with certain drug medication to be described later.

**Dietary.**—As in all acute fevers milk is the best food, for it contains the fat, proteid and carbohydrate molecules so essential in the body economy. To raise the caloric value of the milk, milksugar, with a value of 120 calories to the ounce, may be added so that the patient is not nauseated with the amount of milk alone which is needed to supply his daily need of 2500 to 3000 calories. Buttermilk, kumiss or peptonized milk can be given if more acceptable to the patient.

Grape juice, meat broths, soups, whey and cereals may all be added to the list if

relished by the patient and are well borne by the alimentary tract.

Egg-noggs form a very suitable food, more especially during and following the crisis as well as during convalescence.

Water should be given generously, and to insure a definite amount it should be given at stated intervals. Lemonade or mild aperients are generally agreeable to the patient and are of value for their mild diuretic or laxative effects.

**Care of the Bowels.**—In the majority of cases of pneumonia it is necessary to cleanse the intestinal canal thoroughly and quickly. This can be best accomplished by giving calomel, gr. 1-6, and podophyllin, gr. 1-6, at half hourly intervals for three hours, and a full teaspoonful of effervescent magnesium sulphate should be taken an hour after the last dose. This saline draught may be repeated with advantage in twenty-four and forty-eight hours. If it be possible hot water should be used. In some cases it is well to give the salts dissolved in a small quantity of cool water (not cold) and follow immediately with a draught of plain hot water.

If the bowels are known to have been sluggish an enema of warm salt water should be given before the medicine acts. If it is retained for a short time so much the better.

After the bowels have moved once or twice the patient receives from 5 to 10 grains of the triple sulphocarbolates (lime, zinc and soda) every three hours; a draught of water is ordered with each dose.

**To Relieve the Local Congestion,** three drugs given conjointly prove preeminently efficacious. Aconitine, digitalin (germanic) and veratrine are administered half hourly or hourly till the skin moistens, the temperature falls and the pulse rate reaches 80 or below.

The usual dosage for an adult is gr. 1-134 amorphous aconitine (or gr. 1-500 crystalline aconitine), gr. 1-134 veratrine and gr. 1-67 digitalin; children over twelve may receive half the above dose for six doses, then one-quarter the amount; children under twelve but over five one-quarter at first then one-eighth; patients under five receive one-

eighth of the adult dose from the first. This dosage may be reduced still further as results are secured. In asthenic cases, strychnine, gr. 1-67, is substituted for the veratrine. Either combination may be secured in granule form and so exhibited, or solutions may be readily prepared. Aconitine and veratrine are more serviceable during the first and during the beginning of the second stage of the disease.

**h. Nuclein,** in ten-minim doses, is exhibited hypodermically once or twice daily as the severity of infection may demand; if the patient is aged or weakly or the disorder somewhat advanced it is highly desirable to induce a hyperleukocytosis as rapidly as possible and I do not hesitate to give fifteen or even twenty minims night and morning. In lighter cases ten minims subcutaneously once a day and an equal quantity absorbed from the buccal mucosa every four hours will suffice.

**Chest Pains** which may at first be severe usually yield to two or three doses of bryonin (gr. 1-67) and hyoscyamine (gr. 1-250); or if necessary in extreme cases morphine, gr. 1-8 to 1-4 hypodermically. As a matter of fact, after the bowels have been evacuated and the defervescent begins to act comparative comfort obtains in most cases.

These are the simple and thoroughly effective therapeutic procedures called for in nine out of ten pneumonia cases. It is essential to secure rest, quiet, elimination and defervescence; to increase the natural resistance and render the tissues and fluids of the body inimical to the welfare of the invading bacteria. These things we can accomplish perfectly by taking the steps described, and very frequently no other medication will be required.

It must be borne in mind that the amount of drug which will suffice in one case will not do the work in another. Hence it is necessary to push the aconitine, veratrine (or strychnine) and digitalin combination till defervescence is secured. The same thing applies to the eliminants. If free stools do not follow the six doses of calomel and podophyllin or if the patient is in the habit



of "taking medicine for his bowels" double the dose or repeat the administration till the desired effects are obtained.

**To Relieve the Cough.**—Usually by the second day the cough is fully developed and a stimulating expectorant cough mixture may be required, such as the following:

|                                |       |
|--------------------------------|-------|
| Ammonium carb.....             | 10.0  |
| Syrupi tolutani.....           | 20.0  |
| Inf. digitalis.....            | 60.0  |
| Mixt. glycyrrhizae comp. q. s. |       |
| ad .....                       | 240.0 |

M. Sig: 16 Cc. (tablespoonful) every three hours.

If cough be excessive codeine sulphate, gr. 1-12, or syrup of Dover's powder, 10 to 15 minims may be added to each dose, or the modified Dover's powder granule will be found beneficial. The value of digitalin in this connection will be discussed under cardiac symptoms.

**Nervous Symptoms.**—An icebag to the head allays cerebral congestion and the accompanying headache.

When there is restless insomnia a hypnotic is indicated to secure the needed rest. The depressant hypnotics should however be avoided. Veronal, grs. 15, or sulphonal, grs. 10, given in a warm drink and repeated in two hours may suffice.

**The Kidneys in Pneumonia.**—The condition of the kidneys should be daily noted and small doses of the alkaline diuretics be given, such as the acetate or citrate of potassium, gr. 15, t. i. d., in a full glass of water. If there is an existing nephritis, strophanthin or digitalin may be indicated for their influence on both heart and kidneys. The caffeine group of diuretics is very useful in these cases, notably the sodium benzoate of caffeine in large doses. If marked uremic symptoms occur great benefit can be derived from venesection. Fluid diet only should then be permitted and alcohol, if used at all, should be administered with great caution. Personally I am convinced that when the kidneys are badly involved in cases of pneumonia alcohol should not be given.

**Cardiac Complications.**—Owing to the pulmonary congestion the increased work

thrown upon the heart is enormous and our chief concern in the majority of the cases of pneumonia should be to consider the heart's ability to stand the test. It has long been a mooted question as to when cardiac stimulants are indicated. I am of the opinion that after the congestive stage the heart muscle should be strengthened and quieted. It does not seem advisable to wait until signs of weakness or collapse appear before administering cardiac tonics or stimulants.

For its sustaining and strengthening effect on the cardiac muscle digitalin, given in small repeated doses, is primarily thought of. Strychnine in doses of gr. 1-40 to 1-30 three times daily is a valuable cardiac stimulant and in many cases more efficient than digitalin. As regards the use of alcohol I feel that its value lies chiefly in replenishing tissue waste or rather in preventing it. It is a good diffusible stimulant, although not a cardiac stimulant *per se*, and performs especial service in those patients who are accustomed to its use. Here it is best given in the form of whisky from two to three ounces in twenty-four hours. Otherwise, however, alcohol should be reserved for an emergency to tide the patient over a critical period. It generates no new force but only enables a patient to draw less from his own reserve power. Its administration should be discontinued as soon as the desired effect is obtained.

If signs of cardiac collapse appear, such as a weak, thready, possibly imperceptible pulse, with cold, clammy sweat, rapidly acting cardiac stimulants are indicated, such as ammonia, the action of which drug upon the nasal mucus membrane is quickly conveyed reflexly to the heart long in advance of direct action from absorption of the medicine. Ether given hypodermically stimulates quickly and effectively as does also camphor. Venesection is of great value when there is over-filling of the right heart. In other cases of myocardial insufficiency digitalin and strychnine are the best remedies. It is well to remember however, that active stimulation is not indicated when compensation is undisturbed and should usually

be postponed until the crisis or just preceding it.

**Respiratory Complications.**—If the respiratory center becomes paretic, free elimination to overcome the toxemia, full doses of strychnine hypodermically, and inhalations of pure oxygen are invaluable. In administering the oxygen no mask should be used, for it is not advisable to allow the oxygen to be inhaled directly or too rapidly. If properly administered the respirations will be slowed, increased in depth and strength, and cyanosis will disappear. The effect must be the guide for the quantity used and for the frequency of its administration.

Should edema of the lungs occur dry-cups should be applied to the affected side or venesection done, together with the hypodermic administration of powerful heart stimulants, such as digitalin, strychnine, ammonia, ether, etc. Hypodermics of adrenalin, 1 in 10,000, are of great value in this condition.

**Meteorism.**—A very common condition in pneumonia, very distressing to the patient and often intractable to treatment. In guarding against this symptom appearing the patient should secure a free movement of the bowels daily by using calomel and salines. Foods which produce fermentation in the alimentary tract should be avoided. The intestinal antiseptics are also indicated. If the condition is present turpentine stupes should be applied to the abdomen and enemas of turpentine and water or milk of asafetida and water given. Eserine, gr. 1-10, hypodermically, will stimulate peristalsis in the musculature of the gut and assist in expelling the gas.

**Diarrhea.**—A few cases will present this distressing condition. It is usually caused by improper feeding of the patient, perhaps with a desire to supply strength rapidly by increasing the amount of food given. A grain or two of calomel followed by a saline laxative to remove food detritus and in turn followed by bismuth subnitrate, from 10 to 20 grains, will, in the majority of cases, clear up this condition. It may become necessary to add Dover's powder, 5 grains, to the bismuth, but this should not be done as

a routine procedure. An enema of starch solution with a few drops of tincture of opium may be tried if other means fail.

**Pneumonia of the Aged.**—In a general way the treatment is the same as that heretofore outlined. There are certain precautions to be remembered, however. The heart must be carefully watched and its strength maintained by strychnine, strophanthin or alcohol. Old people are usually benefited by the moderate use of alcohol. Digitalin is ordinarily contraindicated in these cases. External applications should be tepid or warm; the diet light and easily digestible. If the bowels are inactive they should be moved by means of suppositories or enemas. Laxatives should not be given. Catheterization should be resorted to if necessary. Free ventilation is necessary, but old people cannot endure the cold air which is so beneficial to younger patients.

**Pneumonia in Alcoholics with Delirium.**—In the cases which occur in persons addicted to the daily use of alcohol, a condition closely akin to delirium tremens, often develops. The patient should never be left alone lest he do violence to himself. If the mania be excessive, morphine, gr. 1-4, by hypodermic needle, should be given until quiet is secured. Whisky with peptonized milk, to which is added tincture of capsium, 3 to 5 minims, is given three or four times daily.

The condition of the kidneys must be carefully watched for the congestion that often occurs.

**Crisis.**—Support the heart with hypodermics of strychnine or of other rapidly acting stimulants. Here large doses of strychnine must be given. I have given as much as 1-15 grain hypodermically every three hours to an adult in the crisis of pneumonia.

**Delayed Resolution.**—The patient may recover his strength and feeling of good health except for a feeling of weight and irritation in the chest. Slight dulness with râles may then still be noted. Plenty of fresh air with mild exercise may be all that is necessary to clear up this condition. Painting the chest with tincture of iodine

or applying fly blisters should be tried if the condition persists. Iodides and cod-liver oil should be administered.

**Empyema.**—Aspirate, and if the abscess be of any size resect one or two ribs and drain out the pus cavity. Give tonics and restoratives.

When the pleuræ are markedly involved it is well to give bryonin and asclepiadin together every two hours till improvement takes place. The patient should receive nothing but milk, barley water, fruit juice and water, or clam bouillon for the first few days. Barley water with a little lemon juice added is the safest beverage and the most pleasing to the patient. It should, however, be properly prepared, if it is to have value.

**When the Acute Symptoms Have Subsided** it is desirable to give for a few days guaiacol carbonate, calx iodata and nuclein. The proportions I have found most satisfactory are guaiacol carb., gr. 1, calx iodata, gr. 1-2; nuclein, gtt. 10; one such dose is ordered every four hours. There is no doubt that resolution is markedly hastened by the use of this formula. Later, as tonic reconstitutives are indicated, the triple arsenates (iron, quinine and strychnine) should be substituted. If resolution is slow iodine in some form is indicated. It has been my custom to use potassium iodide though calx iodata should do the work equally well.

**Convalescence.**—The patient should remain in bed after the crisis until there would seem to be no danger to the heart in arising. This may be one week following or three, depending upon the severity of the attack and the recuperative power of the patient. Iron, arsenic, nuclein or the triple arsenates of iron, quinine and strychnine, or other tonic restoratives should be given, and the patient should remain out of doors in the fresh air and sunshine as much as possible. Change of climate may materially cut short the period of convalescence. The condition of the appetite and digestion must regulate the quantity and kind of food given. Nutrition must be improved and body-weight increased, but efforts to force matters unduly

in these directions are unwise. Worry, care and excitement should of course be avoided.

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#### THE TREATMENT OF PNEUMONIA

The transfer of pneumonia from the simple inflammations to the infectious fevers has been followed by the claim now made by many, that treatment is of no avail in this malady in so far as it is a question of altering the course of the disease or of seriously influencing it.

To this the clinician replies, that when a certain treatment is instituted in a large number of cases presenting hyperemia of the lungs, the disease does stop there and does not go on to the second stage, or the stage of exudation.

The objection is made, however, that such cases are not pneumonia, since they did not go through the classic stages of the malady.

We learn, therefore, that apparently there are two pulmonary hyperemias, one of which invariably stops with hyperemia and under no circumstances goes on to consolidation, while the other as invariably goes on to consolidation, never stopping in the stage of hyperemia. It is acknowledged that these two forms of pulmonary hyperemia cannot be distinguished by any test known to the clinician pure and simple. They not only look alike, but the man who relies wholly on clinical evidence is a firm believer in the identity of the two maladies and in the efficacy of his therapeutics in breaking up the attack in the first stage and thus aborting the pneumonia.

The matter should be readily settled by bacteriologic examinations of the sputa. If the pneumococcus is found plentifully in the sputa we may safely say that the case is true pneumonia. But this testimony unfortunately has yet to be given. Until it is afforded all that we can say is that the safest plan is to institute treatment at the earliest possible moment, directed against the hyperemia, when if the attack is aborted we may or may not believe that it would

have been one of typical pneumonia had we not intervened.

**Abortive Treatment of Pneumonia.**—

Following the routine we invariably recommend in the treatment of febrile maladies, we begin by completely emptying the alimentary canal and disinfecting it. In the meantime, however, we have attacked the vasomotor conditions, administering digitalin to contract the paretic vessels of the pulmonary area, and aconitine to relax the spasmodic contraction of the remainder of the circulation.

If the heart is excited and the patient plethoric, in fact if the case is one which we should denominate sthenic, we add to these remedies veratrine in order to assist the aconitine in establishing a salutary cardiac inhibition, relaxing vascular spasm and encouraging the elimination of toxins by every route.

But if the patient is depressed and the condition is evidently one of asthenia, we add strychnine arsenate instead of the veratrine, because it aids the digitalin in stimulating contraction of the pulmonary vasomotors, in deepening and prolonging respiration, inciting all the vital faculties, and arousing the resisting powers of the system. Arsenic powerfully induces fatty degeneration, and acting thus upon the forming products of inflammation it tends to rid the system of them quickly and in this way promotes a brief convalescence instead of a tedious one. I shall not here attribute any other function to arsenic, since despite its use for thousands of years as a remedy, its action is not well understood.

We have, therefore, two triad combinations; one consisting of aconitine, digitalin and strychnine arsenate, the other of aconitine, digitalin and veratrine. These two are used interchangeably, accordingly as sthenia or asthenia predominates, and one may change from one to the other and back again several times during the day, in those indeterminate cases where first one condition then the other seems to be manifest. This gives us a flexible and most effective means of meeting the vasomotor conditions presented.

Beyond these the treatment is largely symptomatic, although it is probable that we should insist on the administration of nuclein as directed exactly at the central fact in the disease, that is, it arouses the vital powers of the body to resist the invading microorganisms.

Cough may be soothed by the administration of codeine, the secretions promoted by emetine.

The importance of attending to the condition of the alimentary canal is shown by the fact, well known to every clinician, that pneumonia complicated with bowel disorder is perilous and likely to eventuate in death.

**How to Counteract Hypostasis.**—In elderly patients when pulmonary hypostasis occurs we have an effective remedy in sanguinarine. This acts upon the pulmonary tissues as a stimulant, arousing them to sensibility and inciting their vitality in order to throw off the disease. I have learned to value this remedy very highly indeed in this condition.

Stimulating applications to the chest with change of posture and other remedies are too well known to require mention here.

**Nutrition in Pneumonia.**—Nutrition is of the utmost importance, but we must not forget the mechanical embarrassment which results from the ingestion of large quantities of liquids. For this reason I incline more to Juergenson's suggestion of grated raw beef, or better still, to raw oysters, rather than soups. The object is to give as much nourishment as possible with the least possible bulk, for every ounce of fluid which is imbibed imposes that much more work upon the struggling heart, which is compelled to pump the blood through the impeded pulmonary system. For this reason also I should not recommend the repeated use of bulky saline draughts as cathartics, limiting myself to a single morning dose of this sort; I prefer to aid it if necessary by concentrated saline solution thrown into the rectum or colon. These by osmotic action drain a large amount of fluid from the system and with it a corresponding quantity of toxins, to the great benefit of the patient.

Juergenson rightly attributed most of the danger to the heart, and among the various factors which he enumerated as contributing to the exhaustion of its forces he rightly ranks fever at the top of the list. In our studies concerning the effects of fever on the microorganism we seem of late inclined to forget its effect upon the patient. Eliminate the factor of fecal toxemia, restrain the fever within due limits, sustain the heart and keep up the nutrition, and the mortality from pneumonia should certainly not be large.

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#### PHYSIOTHERAPY IN PNEUMONIA

Pneumonia (lung-fever) is an acute croupous inflammation of the lungs, involving the vesicular structure, rendering the alveolar spaces impervious to air. The principal symptoms are a severe chill, headache, fever, pain in the chest, cough, rusty sputum and great prostration. Pneumonia is by some considered an *infectious* disease, the pathogenic element being the diplococcus of Fränkel. In the light of modern bacteriological research it is doubtful whether the germ named really represents the etiological factor of pneumonia. All clinical pathologists are agreed that inflammation of the lungs can be set up by many other microorganisms, e. g., the influenza-bacillus of Pfeiffer, the pneumococcus of Friedländer, the typhoid-fever germ, the bacillus coli communis, the ordinary pus-germs and many other varieties. I am inclined to think (and my opinion is shared by not a few) that the multiplicity of germ-types that have been found associated with pneumonia, rather makes it doubtful whether any one of them bears a true causative relation to the disease. It seems reasonable to assume that these germs are present as mere companions or concomitant phenomena, such as are observed in some form or other in or during inflammatory conditions or processes in almost any part of the body.

The exciting cause is most frequently atmospheric in character, coupled with a

susceptibility on the part of the individual body. From our studies of hydrotherapy we know what *reaction* means and are familiar with the disastrous results of insufficient, incomplete or absent reaction. If instead of the thermic action of a hydrotherapeutic procedure we imagine a thermic-atmospheric factor to act upon the body-surface without sufficiently compensatory reaction on the part of the cuticle and, through the latter, of the circulation, we can readily understand how the result thereof may explode at some point of least resistance and how in this way a pneumonia might be set up. Thus we find that people whose "reaction" is below par, physiologically speaking, are notoriously liable to pneumonia. This includes all persons suffering from some debilitating chronic ailment (rheumatism, Bright's disease, diabetes), and especially alcoholic subjects. We can readily understand why pneumonia is most prevalent when the atmospheric conditions are most subject to change. Males, being most exposed to these changes, are most frequently attacked.

**Clinical Pathology.**—In the order of frequency the lower right lobe, the lower left and the upper right are liable to be the seats of inflammation. The disease passes through three stages, (1) *engorgement* (congestion, hyperemia) from one to three days; (2) *exudation* (red hepatization) from three to seven days, and (3) *resolution* (gray hepatization) from one to three weeks. In exceptional instances there may be supuration and gangrene. Coexisting pleurisy is common (pleuropneumonia).

**Jugulation of Pneumonia.**—This disease is, all things being equal, the classical type of a self-limited disease. In an individual having ordinary good health the disease, if left alone and the ordinary hygienic regime being enforced, ought to run its course and terminate in recovery. In years gone by venesection was practised during the stage of engorgement. It has practically become obsolete although its rationale as an antiphlogistic is unquestioned. The loss of blood, it is true, has a tendency to lessen the patient's resisting power.



Venesection without loss of blood would be the ideal antiphlogistic method, and this is what hydrotherapy has given us in the various modes of water application which are known as "derivating" methods. "Derivation" (depletion of the congested area) is the alpha and omega of treatment during the first stage of the disease in every case. If properly applied, in suitable cases, there is no doubt that this procedure is capable of aborting pneumonia, or, failing in this, of rendering the course of the disease comparatively mild.

**Onset of the Attack.**—Acute pneumonia is usually ushered in by a tempestuous reaction on the part of the system (chill, convulsions, severe vomiting), followed by a rapid rise in the temperature. Embarrassment of the pulmonary circulation is marked by a rapid but full pulse, quick breathing, short inspiration and long expiration accompanied by a moan; the facial expression is anxious; there is pain near the nipple, intense prostration, etc. The picture is too characteristic to be mistaken. The treatment in this condition (I am almost tempted to call it specific treatment) hinges upon the application of the cold moist-pack from the feet to the costal border. The technic of this most useful hydrotherapeutic application is clearly set forth in some of our previous lessons in which the various hydrotherapeutic procedures were discussed. The engorged area must be depleted by drawing the bulk of the blood to the lower portions of the body. This is venesection without the loss of blood. The pack should last an hour and be repeated two or three times daily. It should be applied without disturbing the patient. In some cases it is of advantage to make a cold application to the chest while the first pack is being applied. An ice-cap to the head is useful, especially where head- and brain-symptoms are present.

After a pack has been removed, a gentle dry rub-down over the whole body should be administered. In this way the skin is kept active. A local hot application is made for the relief of pain in the chest. If after the first two or three packs the general con-

dition of the patient is improved, the temperature is reduced and the skin appears moist, the pack may be given from the feet to the neck.

Physical and psychical rest is of the greatest importance in cases of this kind.

The bowels should be opened by an enema. Gentle massage of the abdomen should be administered from the right iliac space upward toward the liver, then horizontally across toward the left hypochondrium, then downward toward the left iliac space. In this way distention of the abdomen is prevented and regular evacuations are brought about.

**Hygienic Measures.**—The air in the sickroom should be fresh and pure, not too cold and not too dry. The room should be well ventilated, the patient being protected against draught. If the room is cold, a grate-fire can be kept up. The temperature should not exceed 70°F. If the air is too dry, a little water in a pan may be placed over a spirit-lamp and slowly evaporated. The inhalation of moisture-laden warm air is a splendid means of relieving cough. The room itself should by no means be allowed to become too moist; about 80 percent of moisture in the air, as shown by the hygrometer, is desirable in cases of pneumonia, especially if the cough is distressing.

**Stage of Exudation.**—The second stage of pneumonia is mostly feared on account of the condition of the heart. The most common cause of a lethal result is cardiac failure. The arterial pressure is considerable; the strain on the right side of the heart taxes the organ to the utmost. The vasomotor exhaustion is seen in the relaxed peripheral vessels. At this stage the object of treatment is to keep up the heart and to control hyperpyrexia. If the temperature exceeds 103°, a cold sponge-bath should be administered, followed by a dry-rub. The temperature is not reduced by the cold water, but by the increased activity of the skin which radiates heat-units in response to stimulation.

To keep up the heart, the patient should remain in the recumbent posture. Stimu-

lating packs of the lower extremities should be given two or three times daily. A hot application to the feet should be kept up constantly. The skin of the lower extremities should be moist. Occasionally a lukewarm sponge-bath, followed by a dry rub, should be given to the lower limbs. During this stage of the disease, the judicious use of coffee, tea or of alcoholic stimulants in any form is of advantage.

**Dry Heat or Ice-Bag, Which Is Preferable?**—Recently the employment of intense dry heat (thermic cylinder) has been championed by not a few. Others seem to pin their faith to continuous applications of extreme cold (ice-bags). Skinner speaks well of the effects of dry heat locally applied. Mays, on the other hand, prefers the ice-bag.

"Very often," says he, "it is found that the application of ice to an affected spot is immediately followed by a marked lowering of the temperature and improvement in the physical signs in the part. When we come to compare the results of the ice-cold treatment of pneumonia with those that have been obtained from other forms of treatment, it is safe to say that the former is infinitely more satisfactory than the latter. Cold reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates the difficulty of breathing and gives greater general comfort to the patient. It is capable, however, of doing a great deal more. By virtue of its power to stimulate nerve function and to contract small blood-vessels it promotes the pulmonary circulation, relieves stasis, hastens resolution and disperses the products of exudation."

**High Degrees of Heat Are Harmful.**

—The choice between dry heat and the ice-bag is clearly a matter of individualization. Neither the one nor the other should meet with unqualified endorsement, although the ice-bag seems to meet physiological indications in a certain sense. The objection to extremes of heat and cold is clear. Both have a tendency to suspend the vital functions in the skin and the underlying tissues. They produce anesthesia by paralyzing the

sensory nerves. The effects of either intense cold or intense heat on the seat of the disease are illusory. If the temperature in the inflamed lung-tissue could be so lowered or so elevated as to destroy the vitality of the pathogenic germs, the tissue itself would be impaired, because life is not possible beyond certain physiological extremes of temperature. Intense heat continuously applied to the inflamed lung (if such could be imagined) would disintegrate the aqueous elements of the blood by coagulating the albumen and by destroying the white corpuscles which are supposed to play the part of phagocytes. That the heart is bound to suffer by aggravation of the local reaction is clear. The thermic cylinder, locally used in pneumonia, seems, therefore, to be of questionable utility. In inflammatory conditions of the pleura its use is productive of good results.

**Advantages of the Ice-Bag.**—The employment of the ice-bag in pneumonia is less objectionable. It frequently relieves the local symptoms, although its exact physiological *modus operandi* is not quite clear. The suggestions given in Cohen's "System" are worthy of attention and study. "Apply the ice-bag over the dull area, and especially over the advancing edge of the consolidation. If the area is large, use two ice-bags, or even three. Expect to find a distinct local effect (less bronchial breathing and looser râles) on careful physical examination after the ice has been applied twenty-four hours. If fresh areas of consolidation develop, use additional ice-bags; four or even more may be used in a bad case. Correct dosage is as important as it is with drugs.

Apply hot-water-bottles to the feet and legs. In children apply these before applying the ice. Examine the signs twice daily and shift the ice-bags accordingly. If pericarditis is present as a complication, place an ice-bag over the heart. If the temperature is below 99°F., or if the hands are cold or the lips blue, remove the bags for an hour, then replace them and use them for two- or three-hour periods, with one- or two-hour intervals. In severe cases with cyanosis and with rapid, feeble pulse, con-

sider whether leeches would not relieve the right heart. Pneumonia treated with ice within twenty-four hours after the rigor may sometimes be aborted.

#### **Additional Therapeutic Measures.—**

Both for the purpose of producing a local antiphlogistic effect and also to relieve pain, cupping by means of a vacuum apparatus is often useful. A small portable faradic battery can frequently render good service in supporting a weakening heart. Mild faradization of the vagus is a splendid heart-tonic. To relieve headache, gentle massage on both sides of the nape of the neck or pressure over the occiput may be resorted to. A moderately cold bath to the face, followed by stroking from the median line of the forehead toward and over the temples on both sides simultaneously is a useful sedative. In case of threatening collapse the hypodermic injection of normal salt solution should be resorted to. During the third stage of the disease (resolution, gray hepatization) the treatment does not differ from the regimen during the second stage. Rest and perfect hygienic surroundings should be enforced throughout. Inhalation of oxygen or ozone is of value in many cases. A liberal constructive diet should be allowed when convalescence has begun.

The therapeutic suggestions pertaining to the treatment of acute pneumonia practically contain the therapy of many allied conditions such as congestion of the lungs, edema of the lungs, hypostatic pneumonia, catarrhal pneumonia, etc. In conditions in which, owing to weak heart-action, blood-stasis occurs in the most dependent portions of the lungs, an occasional change in the position of the patient is necessary.

**Suggestions as to Prophylaxis.**—There is no doubt in my mind that death from pneumonia in the majority of instances is not due to the severity of the disease *per se*, but to the lack of resisting power on the part of the system. It is especially the heart which does not hold out and goes back on the patient, no matter how robust and strong the latter appears to be. Let me say a word or two on this point. I wish to stimulate thought along lines which are

somewhat removed from the common paths of clinical reasoning. Everybody knows that an alcoholic heart has a poor chance during an attack of pneumonia. Why not go a little farther and examine the possible relationship between other forms of habitual stimulation and a weakening heart? What about our patients who are habitual users of tobacco, tea and coffee? Do they not wear out the reserve-energy of the heart so that the latter may be found wanting when its endurance is mostly to be depended upon?

**We Eat Too Much Meat.**—Let us go still farther and think of the man who subsists on immense quantities of nitrogenous foods and thus keeps his circulation in a constant uproar. I am not by any means a crank on the subject, but I do think that the excessive use of meat is an ever-present and but seldom suspected menace to health, with especial reference to the tonicity of the heart. Excessive use of meat increases the wear and tear of the heart-muscle. Thus it may be an auxiliary cause of a fatal result when an attack of pneumonia has supervened and is taxing the reserve-energy of the system. I believe it would be good hygienic and economic teaching if we should prevail upon people to eat meat not oftener than three times a week. Let them get their proteids out of vegetables. We know that vegetable albumen is more easily assimilated. There is less tendency toward autointoxication.

I should like some expression of opinion from my readers on the meat-question. I am quite sure that we shall have to revise many of our dietetic notions on meat in the near future. Metchnikoff has more than shaken its position as the principal article of diet for man.

OTTO JUETTNER.

Cincinnati, O.

#### **RESUME OF THE LESSONS**

In the "theory and practice" of pneumonia particular stress is to be laid on the fact that the disease produces a congestion of the lungs, which leads to an exudation, which in its turn is absorbed. During all

these stages of the disease the functioning power of the lung is impaired, a fact which reflects unfavorably upon the circulation so that the heart not only has an increased amount of work thrust upon it, since its task of propelling the blood through the lungs has become more difficult, but that it also misses the stimulating effect upon its function which is derived from the normal working of the lungs.

It should not require special notice that with the impairment of the two most vital functions, that of respiration and that of circulation, the entire organism is gravely affected and requires careful attention.

It cannot be sufficiently insisted upon that *we must always treat the condition present rather than the name of the disease*, and this is as true in pneumonia as it is in other pathological conditions. Regarding the claim often made in the last few years, that there is no successful drug treatment for pneumonia, this is only correct in the sense that we do not have a *specific* drug treatment for the disease, as we possess it for malaria or syphilis; it is not correct in the sense that the course of the disease cannot be favorably influenced by drugs. Prof. von Leyden of Berlin, whose beautiful treatise on pneumonia, in "Infectious Diseases" (Appleton's "Modern Clinical Medicine," the American edition of "Die Deutsche Klinik") we strongly recommend to our students for collateral reading, emphasizes the fact that drug treatment is by no means useless in pneumonia, and adds: "Only the fanatics of a drugless therapy absolutely abominate every drug."

We should like to caution against a too-decided depression of the fever in pneumonia. The old idea, especially supported by Schoenlein and by Traube, that fever is not merely a reaction of the organism to harmful influences but marks a curative effort to resist and remove them, has of late years again come to be accepted, and a certain degree of fever is recognized as being salutary rather than harmful. Therefore, while it is proper to moderate excessive degrees of fever, its complete depression is not desirable because it is apt to lead to collapse.

During the entire course of pneumonia the supportive treatment stands foremost. First husband the strength of the patient and increase his resistance; then meet and control the symptoms as they arise, and always keep the old adage in mind:

*"Quidquid agis, prudenter agas, et respice finem"*—Whatever you do, do prudently, and look to the end.

### Alkaloidal Treatment of Influenza.

—Dr. F. F. Attix of Lewiston, Mont., says the following in regard to influenza and its treatment:

"I am inclined to believe that the existing relation between suicide and grip is the result of the depressing action on the part of the toxins of the specific bacilli upon the highly specialized nerve-cells, often resulting in neurasthenia, or in temporary insanity, or in delirium from hyperpyrexia.

"I recall the case of an ex-judge who had a severe attack of influenza, complicated with high fever, delirium, and profound toxemia. I did not realize the importance of elimination then as I do now (thanks to Abbott), and it was nearly ten days before his vigorous constitution won the battle in spite of me. During a greater part of his critical period he would correctly multiply and subtract figures involving millions, in his rambling conversations with himself and with various absent persons. He would plan suicide in detail, and restraint was necessary to prevent him from executing these ideas. I can readily understand how the severe pain and discomfort might influence some temperaments to attempt self-destruction.

"Give calcidin, one to 5 grains, every hour, also 5 to 20 drops of nuclein solution. Aconitine to reduce fever and to equalize the circulation. Strychnine arsenate, "to take up the slack," as a tonic. Atropine to relieve pain and flush the capillaries; quinine arsenate as a tonic. Give one granule of each every thirty to sixty minutes until the temperature falls; when this is accomplished give the same dose every hour or two. 'Clean out, clean up and keep clean' by using calomel, podophyllin, emetine, salines and

the sulphocarbolates 'to effect.' A gargle of sulphocarbolates in solution is very useful. The iron, quinine and strychnine arsenate granule with nuclein is an excellent tonic in the convalescent period. Pilocarpine and veratrine are useful as eliminants in sthenic cases. Calcium sulphide is indicated to saturation where the blood is infected and the bacilli are present in it. Codeine andgelseminine are useful for relieving pain. Cicutine hydrobromide is of value in delirious cases."

**Treatment of Influenza.**—Dr. I. N. Brainerd, Alma, Mich., says: "Nature, left to herself, cures grip with a sweat and a diarrhea. If that is nature's method, it should be ours. This is my treatment: I give a good purge, and 10 grains of acetanilid every four hours for four doses, and then wait until the next day. Also 2 grains of quinine every four hours for four doses, and then wait until the next day. I have the patient stay in bed, and *fill up* on hot drinks, ginger, etc. I sweat them like rain. The acetanilid will not only sweat them—it will relieve the pain. Don't be afraid of the acetanilid given with quinine. The first day's treatment is repeated on the second day without a physic, if it is needed. It hardly ever is. Continue the quinine in 2-grain doses before meals for a week.

"I know how you feel about the use of acetanilid, but this has been my treatment since 1889, and I am proud of my results. I never saw any untoward effects from acetanilid used as I use it; and I buy my acetanilid tablets (five grains each) in ten-thousand lots; I give ten grains four times a day, and two grains of quinine four times a day. I expect to get marked down for this, but I believe that it is the best treatment."

We do not mark our students down for differing from us in opinion. If you are satisfied that your treatment, in your hands, gives the best results, use it by all means. We do not recommend the indiscriminate use of acetanilid because dangerous drugs must be very carefully guarded and are like two-edged swords. If a simple knife will do the work fully as well, it seems foolish

to run any risks of cutting yourself or your patient.

A good many physicians use fairly large doses of acetanilid, with or without quinine, in grip, and like it. It's a matter of opinion and experience. Personally I do not care to use drugs which certainly have a depressing action, if I can find such without that drawback, especially if they will do the work as well or better than the acetanilid. This drug has always appeared to me to act a good deal like a club. It will "club" the fever down, but not without injury to the organism. I think the treatment outlined in the lessons on Influenza is superior to yours, Doctor.

**Influenza: Guard Against Complications.**—Dr W. Herington of Green City, Mo., in commenting on influenza and its treatment has the following to say:

"The main thought of the treatment must be elimination. Also supportive measures must be used, and here again we can apply Abbott's rule: 'Clean out, clean up and keep clean.'

"The more prominent complications are diffuse bronchitis, catarrhal and croupous pneumonia, pleurisy, endocarditis, and otitis media. The best way to guard against these is to use every prophylactic measure at our command to prevent them, and if in spite of all these measures we get a complication the only way to treat it is symptomatically. If the fever rises, give aconitine or digitalin. For otitis use calcium sulphide till the patients smell like a sulphide factory (which they are). In a pleurisy use bryonin, etc.

"Saturate the patient with calcium sulphide and give nuclein. The sulphide kills the bacillus and nuclein reinforces the leukocytes. Overcome debility with strychnine arsenate, relieve pain with hyoscyamine. Aconitine is indicated for fever, and veratrine to help out with elimination. Emetine for a respiratory stimulant. Keep all eliminating organs active and put your patients on good, nourishing, easily assimilable food, and this will carry all through to health and happiness."

That's the idea, Doctor. Elimination and support. Meet all symptoms and compli-



cations at their beginning and you will succeed. But it is not as easy as it sounds. The cleaning out and supporting are generally simple enough. It is the complications which may cause trouble. In order to meet them you want to know what they are, and how they declare themselves in their incipency; then of course you want to know how to handle them. It all takes a lot of study and work. But it's worth it.

**When to Give Quinine and When Not to Give It.**—Dr. John Stuart, Monon, Indiana, has the following to say in his answers to the questions on Part 3, Lesson 4:

"It is a fundamental principle that quinine should not be given unless the skin is moist, the tongue moist, and the secretions are open. If the skin is dry, the tongue parched and the bowels are locked up and loaded, quinine will intensify the evil. Observe the above conditions, and quinine may be given at any time. The fad used to be quinine, quinine. The fever would be checked but would soon return. Quinine is an anti-periodic and has its place when periodicity exists. Keeping in mind the principles given above, the time for exhibiting the drug is clear."

**The Chill of Severe Malarial Fever.**

—"I have used for several years acetanilid, drs. 2; piperine, grs. 12," says Dr. Stuart. "Grind the piperine to a fine powder and mix thoroughly with the acetanilid. The dose is five, six or seven grains. The chill is gone in short order. This prescription has never failed me. Till I find something better I shall stick to it."

**A Method of Giving Quinine.**—W. E. Bremser, St. Louis, Mo., says: "I should like the whole family to know that when bisulphate of quinine in 15- to 60-grain doses is dissolved in epsom-salt solution and applied to any part of the body in malaria it acts like a shot and beats the hypodermic method in the treatment of malaria. I have used it often, especially when the stomach will hold nothing."

Good! That's a practical point. I wonder whether the epsom salt increases the solubility of the quinine salt or the power of the skin to absorb it? Have any mem-

bers of the class ever used quinine that way? If so, please let us know about it.

**Malarial Neuralgia** is handled as follows by Dr. W. F. Barron, of Carmona, Texas:

"I treat it with small combined doses of quinine arsenate, gelseminine, quinine hydroferrocyanide and strychnine arsenate. If the pain is very severe I rapidly increase the gelseminine to effect or resort to small doses of morphine hydrobromide if needed. I also bathe the parts affected with epsom salt, oz. 1; carbolic acid, min. 10, and hot water, one pint."

**Malaria.**—Dr. A. Graves of Meham, Alaska, meets various indications in malaria in this manner:

"My plan of treatment for the intermittent type of malarial fever: If I get there for the first stage (the chill), I give chloroform inhalations, hypodermic of H-M-C or morphine and atropine, or in the absence of these a cup of pepper or ginger tea, and in addition put bottles of hot water to the feet and legs.

"For the febrile, or second, stage, I have found nothing that quite equals the acetanilid compound commonly known as migraine compound. Of this I give 5 grains every one-half to one hour till nervous symptoms and fever are ameliorated.

"To prevent another paroxysm, I begin soon after the fever has gone down with calomel, 1 grain; podophyllin, 1-4 grain; ipecac, 1-8 grain, hyoscyamus, 1-8 grain; one such dose is given every one-half hour till six or eight doses are taken. Four hours after the last dose I give saline laxative to effect. About twelve hours before the time for the next chill I begin with quinine sulphate, grs. 5, and capsicum, grs. 2, in capsules, giving one such capsule every three hours till after chill-time. If the chill is "missed," I direct three grains of quinine to be taken three times a day before meals, and a good dose of 'salts' every morning or two, for a week.

"In remittent cases, the 'clean-out' method used in the intermittent cases is indicated, and this is repeated every few days, though usually in small quantities. The

dose of quinine and capsicum mentioned above is given every four hours, and sometimes I double the quantity of quinine while the fever is low; sometimes I omit a dose when it is at its highest. As a febrifuge I never employ the acetanilid compound in these cases (sometimes an occasional dose to combat nervous symptoms), but the defervescent granules are given one every ten to fifteen minutes to effect. I frequently employ potassium citrate or acetate as a diuretic, and also use strychnine and digitalin if indicated, and not infrequently they are. Salol or the sulphocarbolates as intestinal antiseptics are indicated throughout the febrile course. For convalescence I use elixir of iron, quinine and strychnine. I have had no experience with quinine arsenate, but think I'll give it a trial during the coming malarial season."

#### "Bad" or "Congestive" Chills.—

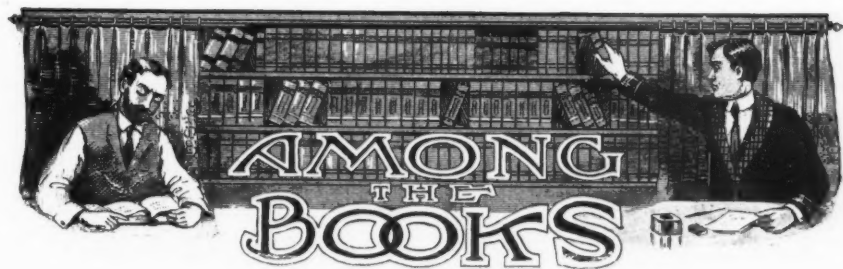
The same writer advises as follows: "Get busy at once and get everybody else busy. Give a hypodermic of H-M-C, or of morphine and atropine. Direct the attendants to 'fill' the bed with bottles of hot water, hot bricks or stones. Give by the mouth such reflex irritants as capsicum, camphor, cajuput, ether, alone or in combination, also strychnine, preferably by the hypodermic route and combined with glonoin and hyoscyamine, frequently repeated till the peripheral circulation is well dilated. Nor is this all, in fact it is not the main part of the treatment for severe chills. Specific and eliminant remedies must be started, and at once. Give twenty to thirty grains of quinine bisulphate or hydrochloride hypodermically every four hours till the patient is thoroughly cinchonized, then continue with half the quantity by the mouth every four hours till well after the next chill time. I like potassium acetate or citrate with oil of turpentine to stimulate kidney elimination. As to purgatives, it is here that I give big doses. I take fifteen or twenty grains of English calomel, divide into three doses, add half a grain of may-apple (*podophyllum*) to each dose, and give one every two hours, following up with magnesium sulphate till the bowels are well cleaned out.

"The comatose condition of malarial fever is not due to 'congestion' as was once thought and for which the back of the head was shaved and a fly blister applied, but to a paralytic condition of the brain-cells due to malarial toxemia. My treatment is quinine, with purgatives and diuretics, and strychnine sulphate, together with hot baths, and defervescent granules if the fever gets high.

"I make a saturated aqueous solution of the quinine, and I generally use the bisulphate or the hydrochloride, and to the solution I add sufficient table salt to make it a "normal salt solution." After making aseptic preparations, I take enough of the solution for the desired dose, usually fifteen to thirty grains with a syringe large enough to hold the dose inject it deeply into the muscular tissue, usually that of the gluteal region."

#### EXAMINATION QUESTIONS

1. What is the definite cause of pneumonia? Give historical data.
2. What are the contributory or exciting causes? What do they suggest therapeutically?
3. What is the significance of the urinary findings?
4. Describe the blood picture in pneumonia. What does the leukocyte count show, as to prognosis and therapeutic indications?
5. Outline the general management of a case of pneumonia. (Not more than one hundred and fifty or two hundred words.)
6. Describe briefly the alkaloidal and the physical forms of treatment. Give your own method.
7. Describe briefly cases at the extremes of life, successfully treated, if any, in your own practice. Give the treatment employed.
8. Can pneumonia be aborted? Give your own opinion on the question, and support with reasons and facts from your experience.
9. Give hydrotherapeutic treatment for onset of an attack of pneumonia.
10. What are the most frequent complications and how do you treat each?



#### OSLER'S "PRACTICE OF MEDICINE"

The Principles and Practice of Medicine. By William Osler. Seventh edition, thoroughly revised. New York and London: D. Appleton & Co. 1909. Price \$5.00.

Dr. Osler's work on the "Principles and Practice of Medicine" is too well known to require much comment. It has been for many years a reference-book for the general practitioner, for whom it was designed, tending to afford the essential results of the extensive investigations constantly carried on in clinics and laboratories here and abroad. The present edition is distinguished from its former ones by embodying recent discoveries and acquirements, especially in the important chapter of infectious diseases. It gives a review of the progress made in syphilography, in our knowledge concerning pneumonia, epidemic cerebrospinal fever, the results of the last International Tuberculosis Congress, and so forth.

#### KNOPF'S "TUBERCULOSIS"

Tuberculosis a Preventable and Curable Disease. By S. Adolphus Knopf, M. D. New York: Moffat Yard & Co. 1909. Price \$2.00.

Dr. Knopf is well known, not only to the medical profession but to the public, by his numerous contributions to the tuberculosis literature, and in this he has for many years devoted himself more especially to the prevention or prophylaxis of the disease.

The little volume just from the press presents in clear and simple language the most important principles to be followed in the

prevention of the disease. But the author also gives valuable advice to the consumptive himself and to those having his care. To quote from the preface, the book is intended to be helpful first to the patient—but not with a view to replacing the physician, for no book can replace the experience and judgment of the experienced physician. The book is intended to help those living with the tuberculous, showing that a clean, conscientious consumptive who is careful in the disposal of his sputum and the prevention of droplet infection is as safe an individual to associate with as anybody else, and that phthisiophobia is unjustified, cruel and inhumane.

To the physician and nurse this book gives valuable hints in the management of tuberculous patients; to the hygienist and sanitarian, and, finally, to municipal and health-authorities, to employers, and in short to all who are likely to come in contact with consumptives, the volume offers assistance and information.

We would commend especially Dr. Knopf's emphatic condemnation of the unreasonable phthisiophobia, or excessive fear of tuberculous infection, which is perhaps an unavoidable consequence of the campaign of education physicians and sanitarians have been engaged in for many years in order to teach the public the contagious nature of tuberculosis. The fact that tuberculosis is communicable from person to person does not, however, mean that a simple contact with patients, as in scarlet-fever or diphtheria, is sufficient to determine an infection. For that prolonged and intimate contact with consumptives is required. Consequently,

while the greatest care is necessary to prevent the further distribution of tubercle bacilli, it is wrong to ostracize consumptives on account of their condition.

#### COOLING'S "COMPARATIVE MYTH- OLOGY"

The Science of Comparative Mythology. By Walter Freeman Cooling, B. A., LL. B. Published by The Promethean Society. Chicago. 1909.

This is a brochure of some one hundred pages intended as a prospectus to an illustrated work in four volumes, and to be sold by subscription only. The price for the first set of two volumes, already in press, is given as six dollars. This prospectus gives the table of contents of the first two volumes, each one divided into four parts, and the titles of the parts and paragraphs reveal a fund of subjects to be discussed which has always interested and which must now more than ever interest the thinking minds of the human race; the reviewer thinks such minds show a large percentage in the medical profession who ought to be eager readers of this prospectus, and ultimately of the work itself. The author is a highly educated scientific and classical scholar—not a badly self-made man but a scholar who does not swear by the words of masters nor steps in their very footprints.

The author endeavors to show that myths are the fossil vestiges in the memory of the race of a matured system of science which prevailed among the men who lived in the tertiary epoch before the great change of climate upon the entire globe. This was the platycnemic race (with flattened shin-bones), our antediluvian ancestors, who attained to vast longevity.

The reader who cannot agree with Mr. Cooling's deductions will nevertheless be profited quite as much from the mass of information which is brought up for discussion as will the one who perchance agrees with him on all points. This work of the author is the product of decades of thinking—thinking deeply, freely and altogether originally. It is not a hackneyed ex-cathedra

work with a university faculty to back it, but it is a far better extra-cathedra work which reviews, analyzes, and discriminates freely thoughts which the *hoi polloi*, both of orthodox and heterodox so-called progressives and conservatives, semithinkingly accept as law and gospel or just because they are "Scientific" (with a big "S") and against both of these.

Together with this pamphlet (sent for 50 cents) goes a supplement of sixteen pages under the title, "The Philosophy of Comparative Mythology," by the same author, which is replete with thought-provoking matter.

#### FOX'S "OPHTHALMOLOGY"

Ophthalmology. A Practical Treatise. By L. Webster Fox, M. D., LL. D., of the Medico-Chirurgical College, Philadelphia. With 6 colored plates and 300 illustrations in the text. New York and London: D. Appleton & Co. 1910. Price \$6.00.

This volume is neither a reprint nor a second edition of "Diseases of the Eye," by the same author and the same publishers, which appeared in 1904. The science and practice of ophthalmology is advancing in the same degree as all the other departments of the healing art, and hence there has been much progress during the last six years. The general practitioner as well as the specialist will find Dr. Fox's "Ophthalmology" a satisfactory work for reference as well as study.

#### CAMBELL'S "TREATMENT AND FOR- MULARY"

Hand-Book of Modern Treatment and Medical Formulary. A Condensed and Comprehensive Manual of Practical Formulæ and General Remedial Measures. Compiled by W. B. Campbell, M. D. Detroit: F. A. Davis Company. 1909. Price \$2.00.

The arrangement of the subject-matter of this book alphabetically according to disease-names followed by appropriate prescriptions is excellent for ready reference. We can confirm what the author says of his

book: "Its use in busy moments and its careful perusal in leisure hours will add to the practitioner's efficiency and usefulness."

#### McINTOSH'S "MEDICAL ELECTRICITY"

Practical Handbook of Medical Electricity for Students and Practitioners. By Herbert McIntosh, A. M., M. D. Boston, The Therapeutic Publishing Company, Inc. 1909. Price \$3.00

An excellent treatise on the theory and practice of electricity in its therapeutic application. The first part of the book, covering more than 300 pages, deals with the physics and physiology of electricity, and describes the apparatus as well as its mode of application. The remaining pages are devoted to the therapeutics of electricity, and consider the electric treatment of diseases of women, diseases of the genitourinary organs, rectum, nose and throat, eye, lungs, and ear, etc. The book is well illustrated and fully indexed.

#### ABBOTT'S "BACTERIOLOGY"

The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. Abbott, of the University of Pennsylvania. Eighth edition, thoroughly revised. With 100 illustrations, 26 in colors. Philadelphia and New York: Lea and Febiger. 1909. Price, \$2.75.

This book always was and continues to be excellent in arrangement, succinct yet comprehensive in statement. The author has added, in this edition, a chapter on infection and immunity.

#### SIMON'S "CHEMISTRY"

A Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A textbook specially adapted for students of medicine, pharmacy, and dentistry. By W. Simon, Ph. D., M. D., of the College of Physicians and Surgeons of Baltimore, and Daniel Base, Ph. D., of the University of Maryland. Ninth edition, thoroughly revised. With 78

illustrations, one colored spectra plate and eight colored plates representing 64 chemical reactions. Philadelphia and New York: Lea & Febiger. 1909. Price \$3.00.

We have given the title page of the book in full so that the reader may form a conception, however inadequate, of the value of the book for him. We must warn, however, against accepting in full the words, "for beginners" in chemistry. This seems an expression dictated by the author's modesty. The book may serve the educated physician perhaps a life-time, to refer to, to refresh the memory on points in chemistry, which is not his everyday work. A physician's library must have a physician's chemistry, and a better one than Simon's he will not find.

#### KER'S "INFECTIOUS DISEASES"

Infectious Diseases: A Practical Text-Book. By Claude Buchanan Ker, M. D. Henry Frowde, Oxford University Press, London and New York. 1909. Price \$7.00.

He who has laboriously worked his way through almost any one of the numerous treatises on bacteriology, immunity, and infectious diseases will be pleasantly surprised at the concise and lucid manner in which Dr. Ker has handled these difficult subjects in the book before us. We have never read so instructive and withal so simple a description of the theory of infectious diseases as that given in the introduction of only twenty pages. The author takes up and discusses briefly the principles of infection, toxins, immunity, in a manner to make these difficult subjects clear to the practitioner, yet without burdening him with the technical detail which the bacteriologist needs. Unfortunately, the subjects of bacteriology, infection, immunity, etc., are far from being closed chapters and the technical treatises are rendered unduly difficult by the fact that the terminology is by no means uniform.

The author takes up the various infectious diseases, beginning with the acute exanthemata and going on to typhoid fever, diphtheria, etc. The theory of the diseases



is given in a beautiful manner which aids greatly in their proper understanding and recognition. The chapters on treatment are well written and contain, as a matter of course, far more on the management than on the medicinal treatment.

The writer of this review was much interested in what the author has to say on the internal use of antiseptics and of calomel in enteric fever. Regarding the former we read on page 329, "We may reasonably expect to secure a considerable antiseptic action on the contents of the bowels, and to delay and check putrefactive processes which, uninterfered with, might lead to the production of gas and the subsequent development of meteorism. *It is possible also that a suitable general antiseptic might check the multiplication of the typhoid bacillus in the blood itself, if, indeed, any growth takes place there.*" (Italics ours.) Concerning calomel, Dr. Ker says (p. 330): "So far as I can judge, calomel, in doses of three grains, empties the small intestine into the large. If the large intestine is not irrigated, or an enema is not given, a motion cannot always be counted on. The time to give this irrigation is not later than seven hours after the dose has been taken. The object with which the calomel is prescribed, in what might be called purgative doses, is to prevent any stagnation of fermenting material in the ileum. The drug has also a considerable antiseptic action on its own account, and it has been proved to limit the multiplication of the organisms of putrefaction in the gut."

The book is fully and beautifully illustrated, the colored pictures of measles and scarlet-fever being especially fine. We recommend its careful study to the practitioner, who will derive much valuable information presented in an attractive manner.

#### MUMFORD'S "SURGICAL MEMOIRS"

Surgical Memoirs, and Other Essays. By James G. Mumford, M. D. New York: Moffat, Yard & Co. 1908. Price \$2.50.

An interesting contribution to the historical study, not only of the lives but of the

struggles, investigations and endeavors of great surgeons, from Hippocrates and Galen down to Lord Lister. The American surgeons are considered together in a separate chapter. Books like the present fortunately are becoming more numerous in our national medical literature, largely through the efforts of Professor Osler, and we would emphasize the fact that a careful and sympathetic study of the history of medicine will help us not only better to understand the problems of today but to become better physicians ourselves. The book is well worth the reading.

#### WILSON'S "MEDICAL DIAGNOSIS"

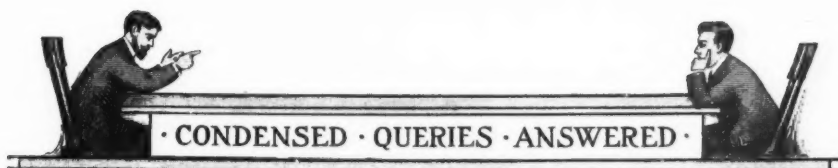
A Handbook of Medical Diagnosis. For the Use of Practitioners and Students. By J. C. Wilson, A. M., M. D., of Jefferson Medical College, Philadelphia. With 408 illustrations in the text and 14 full-page plates. Philadelphia and London: J. B. Lippincott Company. 1909. Price \$6.00.

This large work is divided into four parts, namely, medical diagnosis in general, methods and immediate results, symptoms and signs, and clinical applications, comprising all told more than 1400 royal-octavo pages. The plan of this treatise is somewhat novel, and it may require some study to become familiar with it. But when anyone in active practice feels a real desire to be a good diagnostician this book and its plan will become a most excellent working instrument in his hands.

#### MUIR'S "IMMUNITY"

Studies on Immunity. By Robert Muir, M. A., M. D., University of Glasgow, in Collaboration with C. H. Browning, M. D., A. R. Ferguson, M. D., and Wm. B. M. Martin, M. B., Ch. B. London and New York: Henry Frowde, Oxford University Press. 1909. Price \$3.00.

This is a collection of papers published in various medical journals arranged in connected book form. At some subsequent day this book will be useful as a documentary reference to the doctrines of immunity.



#### PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

### QUERIES

QUERY 5550.—“A Case of Gonorrhea.” J. W. H., Washington, is treating a young man of twenty-six, who has been infected for three months. “There is no pain or present discomfort. Appetite good, no fever, no urging to urinate. Discharge is a thick pus. The doctor is satisfied the lesion is in the posterior urethra. He has injected thymol iodide twice daily for two weeks and used three bougies. The patient is discouraged and so is his physician.”

You give a very limited description of the conditions present in your gonorrhea patient. Chronic posterior urethritis is a stubborn condition at best. It sometimes baffles even the most skilful practitioner.

Examine the lacuna magna and, if there is any sign of infection, with a blunt-pointed hypodermic needle inject a few minims of peroxide of hydrogen, wash out with boric-acid solution, dry with a few pledgets of cotton on a probe, then with a broom straw dipped in carbolic acid enter the sinus, being sure to touch the walls in every direction. In a few minutes neutralize with another straw dipped in alcohol. Two or three such treatments will usually prove curative. If there is a cowperitis you will have more trouble, and the treatment will be rather prolonged.

In all these cases it is absolutely essential to get at the underlying pathological conditions and push internal and local treatment conjointly. The writer has seen in consultation numberless cases which have failed to yield to weeks of medication and has dis-

charged the patients cured within ten days. In such instances there are usually eroded areas in the deep urethra. The parts must be rendered aseptic and silver nitrate or protargol applied direct to the patch. Mitigated citrine ointment occasionally proves the most effective remedy.

Send a specimen of urine, taken by the three-glass method first thing in the morning, to the laboratory. You are, of course, familiar with the technic? We shall then be able to locate the seat of infection. Examine the prostate also and obtain (by milking the gland) a specimen of prostatic fluid. This should accompany the urine. Internally methylene-blue, formin compound, and calcium sulphide to saturation, are usually essential.

In uncomplicated “gleets” the urethra may be irrigated with a solution of thalline sulphate, or you may use mercury bichloride, 1-2 grain, peroxide of hydrogen, 3 ounces, distilled water, 16 ounces, for a few days, and then thalline sulphate, gradually increasing the strength of the latter solution. Don't forget the value of copper electrolysis.

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QUERY 5551.—“Periodical Enlargement of Abdomen.” A. L. S., Oklahoma, describes the condition of a married woman, aged 22, whose enlarged abdomen suggested pregnancy but which suddenly returned to natural size. Her health is fairly good, she eats heartily, but is afflicted with dysmenorrhea. She was treated for ascites, and the symptoms soon disappeared, the abdomen

being reduced to normal size, but in about twelve hours it again was as large as ever. There is some tympany on percussion; no sounds on succussion.

Examine this patient's urine thoroughly, also make a careful examination of the pelvic organs and report the findings. Outline the area of the colonic tympany when the abdominal conditions are normal. How frequently does this enlargement occur? Is its subsidence marked by the passage of large quantities of flatus? As we understand, perfectly normal abdominal conditions obtain at times. What is the extent of the enlargement from the ensiform cartilage to the pubes, or from the lower margin of the colon only? What is the character of this woman's stools? Is she hysterical, a "wind-swallower?"

The use of intestinal antiseptics and digestives with juglandin and strychnine possibly may prove effective. The patient should also wear a snug abdominal belt.

QUERY 5552.—"The Delusions of a Cocainist." M. E. S., Ohio, desires us to inform him if there is any modern work dealing with the cocaine habitué, defining his delusion, etc.

We are not aware that any work outlines fully the "delusions of the cocaine addict;" the book which will most likely serve the purpose is Crother's "Diseases of Inebriety."

Naturally the conditions presenting themselves depend very much upon the dose of cocaine taken and the individual. Excessive dosage causes total unconsciousness, the patient first of all passing into a delirious exaltation, hearing bells, seeing bright lights and feeling as though he were floating in a sea of rosy clouds. Under such circumstances he will jump from a window, throw chairs or other heavy articles into the air, and do the most desperate acts, then falling suddenly prone to the floor and remaining unconscious for anywhere from one to ten minutes.

Cocaine, we know, is very rapidly eliminated from the body, and the effect of an overdose passes away in a few hours. One addict, a refined and delightful gentleman,

kept his wife up the entire night backed up against a wall with a pistol in one hand and operating knife in the other, accusing her (the most devoted and faithful of women) of having "a man hidden in the clothes-closet." As the effect of the drug passed away he would relent, weep and assure the unfortunate woman that he would not hurt her under any consideration. Then he would march over to the mantelpiece and shoot in another grain or more of cocaine, instantly returning to take up the old position and reiterate more fiercely than ever his charge of harboring a lover. This pleasant procedure went on until daylight, and the unfortunate woman was an abject object when members of the family finally came in. The man was easily disarmed and put to bed and the wife nursed him patiently and devotedly all day long. Toward evening he was out and about in his buggy and no one had the faintest idea of the horrible things going on in the home. A week or two later this man so misconducted himself in a hotel (under cocaine influence) that he was given the choice of committal or treatment. He came under the writer's charge, never took another dose of drug and is today a shining light in his profession and worth easily fifty or sixty thousand dollars.

His use of cocaine began with the application of the drug in an inflamed ulcerated tooth. He has often stated that his sensations when under the influence of cocaine were too exquisitely delightful to be described in ordinary words. *BUT*—and he said this "*but*" has to be considered—the horrible discomfort experienced as the effect of the drug faded away also beggared description. He was shivering one moment, burning up the next, tremors shook him from head to foot, perspiration streamed from the pores, saliva from the mouth and serum from the nose; the heart leaped and pounded, vision was blurred and a sense of impending dissolution oppressed his senses. All these horrors disappeared within a minute after the injection of a reasonable dose of cocaine, but (as he expressed it) the next thing was an "unreasonable" dose; then more, and still more, till oblivion ensued. Once the

after-effects had passed off there was no real craving whatever for the drug, and each time he used it he knew what the results would be and hated himself even as he gratified the desire to experience once more "those remarkable feelings."

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QUERY 5553.—"Psoriasis." F. R., South Dakota, is treating a mild case of psoriasis in a girl of nineteen, the outbreak being confined to the elbows and the knees around the kneecaps. About three times as much urea is excreted as normal and the urine is perhaps more acid than normal. There is no indican, sugar or albumin; the solids excreted are normal. Our correspondent asks: "What does the abnormal amount of urea indicate and what treatment does it call for? Is there anything better, for local use, than carbenezol?"

An increased output of urea evidences increased tissue destruction. As you know, the greater portion of nitrogen taken with the food is excreted as urea; hence retrograde tissue metamorphosis and malassimilation of nitrogenous foods influence the elimination of this constituent of the urine. From 20 to 40 Grams (300 to 600 grains) may be excreted by a healthy man during twenty-four hours. Women excrete less urea than men. The mean average excretion of a healthy man is between 20 to 40 Grams, say, 500 grains.

Caffeine, ammonium chloride, potassium chloride, morphine, codeine and lithium carbonate will cause increased excretion of urea. The application of electricity increases the output. Diabetes, dyspnea, anemia, scurvy, epilepsy, gastrointestinal disorders, all increase the output. We are not surprised, therefore, at the urinary conditions in this particular case, for psoriasis rarely exists where the body-chemistry is normal.

Cleanse the affected areas thoroughly with soft (green) soap, adding five minims of a 40-percent solution of formalin to each ounce; then apply carbenezol or ichthyol. If you have a leucodescent or similar lamp, treat the affected areas therewith and rest assured of results. An ointment of ammo-

niated mercury or eugallol also is efficient. We need not call your attention, we think, to the necessity of maintaining a thoroughly active and clean intestinal tract. Give frequent sponge-baths, using a carbolated solution of magnesium sulphate (1 ounce to 2 quarts) and order a light mixed diet. Salt and smoked meats or fish are tabooed. Iridin, stillingin, rumicin and alnuin are efficient remedies; arsenic sulphide may be pushed to effect. The main thing is to secure proper nutrition without throwing excessive waste into the system. The bile salts and calcium sulphocarbolate have proven useful in the writer's practice.

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QUERY 5554.—"Gelsemin and the Shaller Rule." E. L. M., Missouri, asks: "Can we give gelsemin (gr. 1-134) by the Shaller rule?"

Gelsemin, which is a concentration, may be given in larger doses than gelseminine, the alkaloid. The "Shaller rule," as a matter of fact, *applies to aconitine*. Usually we give much larger doses of the latter drug. One granule of such alkaloids as aconitine, veratrine, gelseminine, cicutine, etc., may be dissolved in 10 teaspoonfuls of water, and a half to one teaspoonful given at half-hourly or hourly intervals. We do not hesitate to give even larger doses than this when the necessity arises. Extreme care is necessary, of course, only where the medicine possesses (in large doses) toxic properties and the attendant is unable to recognize evidences of drug sufficiency.

Gelsemin is a concentration containing both the two active principles of gelsemium, and in the estimation of some clinicians more nearly represents the therapeutic efficacy of the drug. Note Shaller's article on aconitine dosage in this journal for last January.

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QUERY 5555.—"Irritable Vesical Sphincter." W. M. G., Pennsylvania, requests that we give him suggestions for the treatment of an irritable condition of the neck of the bladder of such severity that it is difficult for the patient to control the sphincters, this being due to an old specific ure-

thrititis. The patient complains of a burning sensation upon passing urine.

We could easily prescribe at random, but the success of the positive therapist is largely due to the fact that he "diagnoses closely and gives the right remedy for the condition present in small repeated doses to effect. We would, therefore, ask you to give us as clear a clinical picture as is possible, accompanying this with a specimen of urine taken by the three-glass method or, if this be impracticable, send a 4-ounce specimen from the entire amount passed in twenty-four hours, stating the total amount voided. Our pathologist will examine it, when we can prescribe more intelligently.

In the meantime, if the urine is alkaline, push ammonium benzoate with arbutin, using strychnine and hydrastin as alternants for their tonic effect. If there is hyperacidity, give lithia, using the other remedies mentioned at the same time. An oil solution of thymol iodide should be injected into the deep urethra every third day, while an enema of decinormal salt solution three times a week will, we think, prove beneficial. Is the prostate involved?

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QUERY 5556.—"Orchitis. Enlarged Prostate." A. D. A., Connecticut, asks: "What would you give for orchitis, not venereal, or, if venereal, the cause. Also for enlarged prostate."

Inflammation of the testicle (orchitis) may follow mumps; it may also be of traumatic origin or spontaneous. It seems syphilis can be excluded. Are you quite positive that there has not been a gonorrhea? Primary orchitis is rare, the secondary variety being usually met with. Now and then an orchitis is seen without discoverable cause. Excessive venery and ungratified sexual excitement may cause more or less orchitis. Pain and swelling in such instances are evanescent. The local symptoms of orchitis are too well known to need description.

The general symptoms may be severe chills, fever, nausea, vomiting, hiccoughs, sleeplessness, and great nervous irritability. The main treatment in all cases is rest in

bed, support of the testicle and the application of guaiacol. The writer applies guaiacol freely, and then hot compresses wrung out of a solution of magnesium sulphate, supporting the testicles and dressing with a wide band passed around the thighs.

Internally small doses of aconitine, veratrine and cicutine may be ordered if the temperature is above normal. Phytolaccin, iridin and anemonin may be given in fairly full dosage every three hours, with calx iodata, 1 grain every four hours. Extreme pain may be controlled by the use of hyoscine, morphine and pilocarpine. If the slightest sign of pus formation shows push calcium sulphide (gr. 1-6 hourly), and puncture at the first sign of fluctuation. In the earlier stages results sometimes follow saturation with pilocarpine. The drug should be pushed with the other remedies suggested until the patient perspires freely. Omit twenty-four hours and repeat.

The treatment of prostatic hypertrophy varies according to the type of congestion present. In the ordinary congestion encountered in men under forty or thereabouts the use of suppositories containing ichthyol or carbenzol with hydrastin and atropine proves effective. Applications of thymol iodide in oil through the urethra, together with the use of collinsonin, hydrastin and phytolaccin internally, usually aid materially.

In the fibrous type (senile prostate) more radical measures are called for. You should read Candler's article which appeared in CLINICAL MEDICINE for April, 1908.

If you will give us a clear description of any particular case you may have under treatment we shall be only too pleased to suggest further. The value of the galvanic and faradic current in all prostatic congestions must not be forgotten. It should be born in mind that dilation of the anal sphincter proves beneficial in practically every instance.

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QUERY 5557.—"Books on Massage." A. C. W., Illinois, inquires as to what book or author we should recommend where one wishes to inform himself on the subject of massage and perhaps to use it in his practice.



One of the most simple and satisfactory publications, in our estimation, is "Practical Massage in Twenty Lessons," by Harvig Nissen. The price is \$1.00. Another extremely useful book which we are sure will be found well worth studying is "Massage Treatment in Diseases of Women," by Ziegenspeck of Munich; Westerschulte of Chicago is translator, and Frank Betz, we believe, the publisher. It is sold at \$1.00. You might, under the circumstances, address Dr. F. H. Westerschulte for further information relative to recent literature on massage.

Though massage is unquestionably useful the physician can rarely apply it satisfactorily. He has neither time to acquire proficiency nor to give treatments. Moreover, the modern vibrator is so easily obtainable and the effects of vibration are so superior to those secured by massage alone that we suggest the study of vibration. The osteopaths (as you say) do some good work, chiefly because they diagnose closely and use a few rational procedures.

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QUERY 5558.—"The Old Aconitine Question Again." G. R. R., Michigan, writes as follows: "If called to an adult with fever and it is desirable to give aconitine alone or in combination, how do you give it? In solution always, or do you tell the patient to swallow the granules with water? If a granule gets lodged in the throat and aconitine-effect results, how do you relieve the tingling?"

Under the conditions described it is desirable always to clean out first the intestinal canal and so stop autointoxication as rapidly as possible. Do not give aconitine for "fever" until you have taken such steps. For instance, you have an infectious disease to deal with, the temperature 103°F., skin hot and dry, pulse quick and bounding. You will order small doses of calomel and podophyllin every half hour for four to six doses, beginning this medication at once and ordering a saline laxative draught one to two hours after the last dose. You will also order sodium, calcium or zinc sulphocarbolate (alone or combined), with plenty

of water, every two or three hours in order to secure a therapeutically clean intestine. In this manner you put the system in the best condition to overcome the disturbing toxins and prevent further poisoning from the alimentary canal.

The early administration of aconitine (or aconitine, digitalin and veratrine together) is of course desirable, so you either order a granule hourly with a swallow of water for three to six hours, or make a solution of, say, 6 granules (1 granule to 4 teaspoonfuls of water) and order a teaspoonful half-hourly to effect or until tingling of the throat and other signs of aconitine sufficiency are present. This dosage is for an adult. Children require weaker solutions, the dosage depending upon age and conditions, as determined by the dose-table.

Where the patient or nurse is of a low order of intelligence simply leave a *safe maximum* quantity of a solution of aconitine (this rule applying to any toxic alkaloid), that is to say, such a total quantity as cannot prove injurious if consumed within a given number of hours, and of this order one teaspoonful half-hourly or hourly until the skin cools and moistens, or until 20 (or whatever number you decide on) doses have been taken. Here the worst that could happen is that the patient should receive a few more doses than necessary. Remedial effect might follow the fifteenth dose or even the twelfth, but the additional medication will certainly not prove injurious in such cases, provided again that you leave a safe total quantity of solution.

On the other hand, if the medicine is all consumed and the desired effect not secured by the time the patient has been cleaned out, had the intestinal tract rendered practically aseptic, and received a rational amount of the indicated medicine, it is certainly time for the doctor to revise his treatment. In the early stage of any acute disease the physician should see his patients at least once daily. In nine cases out of ten on your return (even in so-called unfavorable cases) you will find a marked improvement, and will only have to push "the right remedy" for a short time to secure

curative results. But, Doctor, "perfect results only follow a perfect technic," and in order to do definite things we must have, first, a clear idea of the pathologic conditions present and, secondly, a lucid conception of the physiologic action of the drugs we prescribe to correct them. To give aconitine for fever without securing elimination would be a therapeutic absurdity.

QUERY 5559.—"Chronic Urethritis." C. W. L., Ohio, has a case of gonorrhea of more than two months' standing. He has used bougies for a while, injections of protargol, ichthyol, carbenzol, and so on. There is observed a little discharge each day. He thinks of trying dilation, and asks advise in general.

It is best to send a specimen of the discharge to the laboratory so that we may know something more about the condition. Touch the slide to the meatus, rub it and the cover-glass together so as to spread the discharge, dry by waving over an alcohol lamp and glue the edges together. There may be an infection of the lacuna magna or eroded areas in the deep urethra. Gleets are not often cured by empirical treatment. Injections of a solution of the sulphocarbolates, 10 grains to the ounce, 1-2 dram of glycerin being added, often prove effective in uncomplicated cases. Such injections should be made three times daily in the usual manner. Twice a week 20 to 30 minims of a 10-percent solution of thalline sulphate in sterile oil may be injected carefully.

Internally administer calcium sulphide, hydrastin and collinsonin every three hours, adding, in some cases, methylene-blue three times daily. See if there is any enlargement of the prostate. Be sure and keep the patient's bowels open with saline laxatives and the kidneys active.

QUERY 5560.—"Why Disinfect the Bowel in Typhoid?" J. H. H., Pennsylvania, asks why we think disinfecting the bowels in typhoid fever aids in the recovery of the patient? "They teach us at Jefferson," he says, "that intestinal antiseptics are of

no use whatever in the treatment of typhoid fever."

In enteric fever toxins are generated in the intestinal canal, and they affect the entire system. If we inhibit the growth of the bacillus typhosus and all other, generally pathogenic, bacteria and thereby put an end to toxin formation we reestablish normal conditions—and, as you surely know, disease and a normal body-chemistry cannot coexist. However, the whole question of intestinal antiseptics has been thrashed out so thoroughly that a perusal of the literature we are mailing you with our compliments will, we are sure, convince you that such procedure is absolutely necessary. Indeed the more modern textbooks recommend the use of the sulphocarbolates or other antiseptics for this purpose.

The experience of thousands of physicians has proven the sulphocarbolates to be the least objectionable and most efficacious of the entire group. Moreover, in the practice of these men the typhoid mortality has been reduced fully 60 percent. It is difficult to believe that any modern teacher of therapeutics would instruct his class that antiseptics are of "no use whatever in typhoid!" Prejudice dies hard, it is true, and those who teach only that which they themselves were taught a half century ago are likely to have but poorly educated disciples. Great things are happening in these days, and the real masters of medicine need to learn even as they teach. Under the circumstances it is comforting to remember that the "father of the sulphocarbolates," Waugh, also hails from Jefferson College.

Strangely enough, we have just picked up a letter from a Missouri friend from which we abstract the passage below. It needs no comment.

"Ten years ago I frequently encountered hemorrhage of the bowels in typhoid fever. For the last ten years I have been using the sulphocarbolates and during that time never had a hemorrhage in my cases. Now I am afraid to follow any other kind of treatment."

But "antiseptics are of no use whatever in typhoid fever!" Ochone! and also alas!